10/077,130

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=> d his

     (FILE 'HOME' ENTERED AT 15:24:31 ON 12 MAY 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 15:25:24 ON 12 MAY 2005
L1      1314489 S KINASE?
L2        21792 S HUMAN (3W) L1
L3      7062483 S CLON? OR EXPRESS? OR RECOMBINANT
L4        10597 S L2 AND L3
L5      2637778 S CARDIOVASCULAR OR PROLIFERATIVE
L6          395 S L4 AND L5
L7         2397 S "HUMAN PROTEIN KINASE?"
L8           81 S L6 AND L7
L9           69 DUP REM L8 (12 DUPLICATES REMOVED)
                E LIBERMANN R/AU
                E LIBERMANN R K/AU
                E ACTON S L/AU
L10         221 S E3-E12
                E KAPELLER (W)LIBERMANN
L11           0 S E3
L12         114 S E2
L13         335 S L10 OR L12
L14           3 S L7 AND L13
L15           2 DUP REM L14 (1 DUPLICATE REMOVED)
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PASSWORD:
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NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	FEB 25	CA/CAPLUS - Russian Agency for Patents and Trademarks (ROSPATENT) added to list of core patent offices covered
NEWS	4	FEB 28	PATDPAFULL - New display fields provide for legal status data from INPADOC
NEWS	5	FEB 28	BABS - Current-awareness alerts (SDIs) available
NEWS	6	FEB 28	MEDLINE/LMEDLINE reloaded
NEWS	7	MAR 02	GBFULL: New full-text patent database on STN
NEWS	8	MAR 03	REGISTRY/ZREGISTRY - Sequence annotations enhanced
NEWS	9	MAR 03	MEDLINE file segment of TOXCENTER reloaded
NEWS	10	MAR 22	KOREAPAT now updated monthly; patent information enhanced
NEWS	11	MAR 22	Original IDE display format returns to REGISTRY/ZREGISTRY
NEWS	12	MAR 22	PATDPASPC - New patent database available
NEWS	13	MAR 22	REGISTRY/ZREGISTRY enhanced with experimental property tags
NEWS	14	APR 04	EPFULL enhanced with additional patent information and new fields
NEWS	15	APR 04	EMBASE - Database reloaded and enhanced
NEWS	16	APR 18	New CAS Information Use Policies available online
NEWS	17	APR 25	Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications.
NEWS	18	APR 28	Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus

NEWS EXPRESS	JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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=> file medline embase biosis biotechds scisearch hcaplus ntis lifesci
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.42       0.42

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FILE 'LIFESCI' ENTERED AT 15:25:24 ON 12 MAY 2005
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=> s kinase?
L1     1314489 KINASE?

=> s human 93w) l1
UNMATCHED RIGHT PARENTHESIS '93W) L9'
The number of right parentheses in a query must be equal to the
number of left parentheses.

=> s human (3w) l1
L2       21792 HUMAN (3W) L1

=> s clon3 or express3 or recombinant
3 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s clon? or express? or recombinant
   5 FILES SEARCHED...
L3     7062483 CLON? OR EXPRESS? OR RECOMBINANT

=> s l2 and l3
L4       10597 L2 AND L3

=> s cardiovascular or proliferative
L5     2637778 CARDIOVASCULAR OR PROLIFERATIVE

=> s l4 and l5
```

L6 395 L4 AND L5

=> s "human protein kinase?"
4 FILES SEARCHED...
L7 2397 "HUMAN PROTEIN KINASE?"

=> s l6 and l7
L8 81 L6 AND L7

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 69 DUP REM L8 (12 DUPLICATES REMOVED)

=> d 1-69 ibib ab

L9 ANSWER 1 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:1121975 HCAPLUS
DOCUMENT NUMBER: 142:175255
TITLE: Protein Kinase C Pathway Is Involved in Transcriptional Regulation of C-Reactive Protein Synthesis in Human Hepatocytes
AUTHOR(S): Ivashchenko, Yuri; Kramer, Frank; Schaefer, Stefan; Bucher, Andrea; Veit, Kerstin; Hombach, Vinzenz; Busch, Andreas; Ritzeler, Olaf; Dedio, Juergen; Torzewski, Jan
CORPORATE SOURCE: Aventis Pharma Deutschland GmbH, Frankfurt am Main, Germany
SOURCE: Arteriosclerosis, Thrombosis, and Vascular Biology (2005), 25(1), 186-192
CODEN: ATVBFA; ISSN: 1079-5642
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Objective- C-Reactive protein (CRP) is the prototype acute phase protein and a **cardiovascular** risk factor. Interleukin-1β (IL-1β) and IL-6 stimulate CRP synthesis in hepatocytes. The authors searched for addnl. pathways regulating CRP **expression**. Methods and Results- Primary human hepatocytes (PHHs) were treated with IL-1β, IL-6, and protein kinase C (PKC) activator phorbol 12,13-dibutyrate (PDBu). CRP was analyzed by quant. RT-PCR and ELISA. PDBu significantly induced CRP transcription by 21.0-fold and protein release by 2.9-fold. Transcriptional regulation was studied in detail in hepatoma G2 (HepG2) cells stably transfected with the 1-kb CRP promoter (HepG2-ABEK14 cells). In these cells, PDBu significantly induced CRP transcription by 5.39-fold. Competetive inhibition with bisindolylmaleimide derivative LY333531 abolished PDBu-mediated promoter activation. Competetive inhibition with IκB kinase inhibitor I229 also inhibited PDBu effects. Importantly, IL-8 significantly induced CRP release in PHHs by 58.675-fold, which was blockable by LY333531. Conclusions- This study describes a novel PKC-dependent transcriptional regulation of CRP gene **expression**, which, in analogy to the classical IL-1β and IL-6 pathways, is operational in hepatocytes only. It also identifies IL-8 as a potential physiol. PKC activator. HepG2-ABEK14 cells may be useful for high throughput screening to identify inhibitors of CRP synthesis for the prevention of **cardiovascular** disease.
REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2005:139369 HCAPLUS
DOCUMENT NUMBER: 142:175392
TITLE: Analysis of genetic information contained in

peripheral blood for diagnosis, prognosis and monitoring treatment of allergy, infection and genetic disease in human

INVENTOR(S): Liew, Choong-Chin

PATENT ASSIGNEE(S): Chondrogene Limited, Can.

SOURCE: U.S. Pat. Appl. Publ., 155 pp., Cont.-in-part of U.S. Ser. No. 802,875.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 42

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004241726	A1	20041202	US 2004-812707	20040330
US 2004014059	A1	20040122	US 2002-268730	20021009
US 2004241726	A1	20041202	US 2004-812707	20040330
US 2004248169	A1	20041209	US 2004-812737	20040330
WO 2004112589	A2	20041229	WO 2004-US20836	20040621

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 1999-115125P	P	19990106
US 2000-477148	B1	20000104
US 2002-268730	A2	20021009
US 2003-601518	A2	20030620
US 2004-802875	A2	20040312
US 2004-812707	A	20040330
US 2001-271955P	P	20010228
US 2001-275017P	P	20010312
US 2001-305340P	P	20010713
US 2002-85783	A2	20020228
US 2004-809675	A	20040325

AB The present invention is directed to detection and measurement of gene transcripts and their equivalent nucleic acid products in blood. Specifically provided is anal. performed on a drop of blood for detecting, diagnosing, and monitoring diseases, and in particular allergy, using gene-specific and/or tissue-specific primers. Affymetrix Human Genome U133 and ChondroChip microarrays were used to detect differentially **expressed** gene transcripts in hypertension, obesity, allergy, systemic steroids, coronary artery disease, diabetes type 2, hyperlipidemia, lung disease, bladder cancer, rheumatoid arthritis, osteoarthritis, liver cancer, schizophrenia, Chagas disease, asthma, and manic depression syndrome. The present invention describes methods by which delineation of the sequence and/or quantitation of the **expression** levels of disease-specific genes allows for an immediate and accurate diagnostic/prognostic test for disease or to assess the effect of a particular treatment regimen. [This abstract record is one of 3 recordsfor this document necessitated by thelarge number of index entries required tofully index the document and publicationsystem constraints.].

L9 ANSWER 3 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2004-13997 BIOTECHDS
TITLE: New **human protein kinase**, designated NRHK1, and encoding polynucleotides for diagnosing, preventing or treating kinase-related diseases, such as cancer, Parkinson's disease, inflammation, stroke or **cardiovascular** disorders;
recombinant enzyme protein production and antisense sequence for use in disease therapy and gene therapy
AUTHOR: LIU W; WU L
PATENT ASSIGNEE: WYETH; LIU W; WU L
PATENT INFO: WO 2004032878 22 Apr 2004
APPLICATION INFO: WO 2003-US32305 10 Oct 2003
PRIORITY INFO: US 2002-417155 10 Oct 2002; US 2002-417155 10 Oct 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-340807 [31]

AB DERWENT ABSTRACT:
NOVELTY - An isolated polynucleotide comprising (I), is new.
DETAILED DESCRIPTION - An isolated polynucleotide comprising (I), is new. (I) comprises: (a) a nucleic acid sequence encoding a sequence of 830 amino acids (S2) fully defined in the specification; (b) a variant of (a), where the variant and the nucleic acid sequence have at least 91% sequence identity; or (c) a sequence that hybridizes under stringent conditions to a polynucleotide consisting of a sequence of 2493 bp (S1) fully defined in the specification, or its complement, where the polynucleotide consists of at least 1000 or at least 2000 nucleic acids and does not include a sequence of 2553 (S4) or 2115 (S5) bp given in the specification, or its complement, and where the polynucleotide encodes a protein kinase. INDEPENDENT CLAIMS are also included for: (1) an isolated polypeptide comprising a fragment, or a variant of the fragment, of S2, where the fragment comprises at least 500 consecutive amino acid residues of S2; (2) an antibody capable of binding to S2 with a binding affinity of no less than 105 M-1; (3) an NRHK1 detection kit comprising the above antibody or a probe that hybridizes to the nucleotide sequence of S1 or its complement; (4) a host cell containing the above polynucleotide or its variant; (5) a transgenic non-human animal comprising the above polynucleotide or its variant; (6) identifying an agent capable of binding to NRHK1 kinase, comprising contacting a candidate agent with a polypeptide comprising S2, or its fragment or variant; and detecting the binding between the candidate agent and the polypeptide; (7) identifying an agent capable of modulating the level of activity of NRHK1 kinase, comprising contacting a candidate agent with a polypeptide comprising S2 or its biologically active fragment; and detecting a change in the level of an activity of the polypeptide; (8) a pharmaceutical composition for preventing or treating NRHK1-related diseases, comprising a pharmaceutical carrier and an agent that modulates an NRHK1 activity or the NRHK1 gene **expression**; (9) preventing or treating an NRHK1-related disease in a subject, comprising introducing into the subject an amount of the pharmaceutical composition cited above; and (10) inhibiting the **expression** of the gene in the cell by RNA interference comprising introducing the above polynucleotide into a cell which **expresses** human NRHK1 gene.
BIOTECHNOLOGY - Preferred Polynucleotide: The nucleic acid sequence is selected from S1 or a sequence having 29836 bp (S3) fully defined in the specification, its complement, and a nucleic acid sequence that differs from S1 or S3 or its complement due to the degeneracy of the genetic code. The variant and the nucleic acid sequence have at least 95% sequence identity. The polynucleotide is capable of inhibiting human NRHK1 gene **expression** by RNA interference. It comprises a siRNA sense strand or a siRNA antisense strand selected from those listed in the specification. Preferred Polypeptide: The polypeptide fragment consists of S2. The variant and the fragment have at least 95% sequence

identity. Preferred Transgenic Animal: At least one allele of a gene in the genome of the animal is functionally disrupted, where the gene encodes a polypeptide that has at least 70% sequence identity to S2. Preparation: The polynucleotide was prepared using standard isolation techniques.

ACTIVITY - Cytostatic; Antiasthmatic; Antiparkinsonian; Antiinflammatory; Antipsoriatic; Antirheumatic; Antiarthritic; Osteopathic; Immunosuppressive; **Cardiovascular**-Gen.; Ophthalmological; Cerebroprotective; Anticonvulsant; Vasotropic. No biological data given.

MECHANISM OF ACTION - Gene Therapy.

USE - The composition and methods are useful for diagnosing, prognosing, preventing and treating kinase-related diseases, in particular, diseases associated with aberrant **expression** of NRHK1, such as cancer, asthma, Parkinson's disease, inflammation, psoriasis, rheumatoid arthritis, osteoporosis, graft-versus-host disease, **cardiovascular** disorders, autoimmune disorders, retinal detachment, stroke, epilepsy or ischemia/reperfusion.

ADMINISTRATION - Administration can be parenteral (e.g. intravenous, intradermal or subcutaneous), oral (e.g. inhalational), transdermal (topical), transmucosal, or rectal. No dosage details given.

EXAMPLE - No suitable example given. (108 pages)

L9 ANSWER 4 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-13996 BIOTECHDS
TITLE: New **human protein kinase**, designated HPK3P23, and encoding polynucleotides for diagnosing, preventing or treating kinase-related diseases, such as cancer, Parkinson's disease, inflammation, stroke or **cardiovascular** disorders; vector-mediated protein-kinase gene transfer and **expression** in host cell for **recombinant** protein production, drug screening and gene therapy
AUTHOR: LIU W; WU L
PATENT ASSIGNEE: WYETH; LIU W; WU L
PATENT INFO: WO 2004032877 22 Apr 2004
APPLICATION INFO: WO 2003-US32302 10 Oct 2003
PRIORITY INFO: US 2002-417209 10 Oct 2002; US 2002-417209 10 Oct 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-340806 [31]
AB DERWENT ABSTRACT:

NOVELTY - An isolated polynucleotide comprising (I), is new.

DETAILED DESCRIPTION - An isolated polynucleotide comprising (I), is new. (I) comprises: (a) a nucleic acid sequence encoding a sequence of 1016 amino acids (S2) fully defined in the specification; (b) a variant of (a), where the variant and the nucleic acid sequence have at least 91% sequence identity; or (c) a sequence that hybridizes under stringent conditions to a polynucleotide consisting of a sequence of 3644 bp (S1) fully defined in the specification, or its complement, where the polynucleotide consists of at least 1000 or at least 2600 nucleic acids and does not include any of the 4 sequences of 1601-2562 bp (S5-8) given in the specification, or its complement, and where the polynucleotide encodes a protein kinase. INDEPENDENT CLAIMS are also included for: (1) an isolated polypeptide comprising a fragment, or a variant of the fragment, of S2, where the fragment comprises at least 500 consecutive amino acid residues of S2; (2) an antibody capable of binding to S2 with a binding affinity of no less than 105 M-1; (3) an HPK3P23 detection kit comprising the above antibody or a probe that hybridizes to the nucleotide sequence of S1 or its complement; (4) a host cell containing the above polynucleotide or its variant; (5) a transgenic non-human animal comprising the above polynucleotide or its variant; (6) identifying an agent capable of binding to HPK3P23 kinase, comprising

contacting a candidate agent with a polypeptide comprising S2, or its fragment or variant; and detecting the binding between the candidate agent and the polypeptide; (7) identifying an agent capable of modulating the level of activity of HPK3P23 kinase, comprising contacting a candidate agent with a polypeptide comprising S2 or its fragment or variant; and detecting a change in the level of an activity of the polypeptide; (8) a pharmaceutical composition for preventing or treating HPK3P23-related diseases, comprising a pharmaceutical carrier and an agent that modulates an HPK3P23 activity or the HPK3P23 gene **expression**; (9) preventing or treating an HPK3P23-related disease in a subject, comprising introducing into the subject an amount of the pharmaceutical composition cited above; and (10) inhibiting the **expression** of the gene in the cell by RNA interference comprising introducing the above polynucleotide into a cell which **expresses** human HPK3P23 gene, thus, .

BIOTECHNOLOGY - Preferred Polynucleotide: The nucleic acid sequence is selected from S1 or a sequence having 220860 bp (S3) fully defined in the specification, its complement, and a nucleic acid sequence that differs from S1 or S3 or its complement due to the degeneracy of the genetic code. The variant and the nucleic acid sequence have at least 95% sequence identity. The polynucleotide is capable of inhibiting human HPK3P23 gene **expression** by RNA interference. It comprises a siRNA sense strand or a siRNA antisense strand selected from those listed in the specification. Preferred Polypeptide: The polypeptide fragment consists of S2. The variant and the fragment have at least 95% sequence identity. Preferred Transgenic Animal: At least one allele of a gene in the genome of the animal is functionally disrupted, where the gene encodes a polypeptide that has at least 70% sequence identity to S2. Preparation: The polynucleotide was prepared using standard isolation techniques.

ACTIVITY - Cytostatic; Antiasthmatic; Antiparkinsonian; Antiinflammatory; Antipsoriatic; Antirheumatic; Antiarthritic; Osteopathic; Immunosuppressive; **Cardiovascular**-Gen.; Ophthalmological; Cerebroprotective; Anticonvulsant; Vasotropic. No biological data given.

MECHANISM OF ACTION - Gene Therapy.

USE - The composition and methods are useful for diagnosing, prognosing, preventing and treating kinase-related diseases, in particular, diseases associated with aberrant **expression** of HPK3P23, such as cancer, asthma, Parkinson's disease, inflammation, psoriasis, rheumatoid arthritis, osteoporosis, graft-versus-host disease, **cardiovascular** disorders, autoimmune disorders, retinal detachment, stroke, epilepsy or ischemia/reperfusion.

ADMINISTRATION - Administration can be parenteral (e.g. intravenous, intradermal or subcutaneous), oral (e.g. inhalational), transdermal (topical), transmucosal, or rectal. No dosage given.

EXAMPLE - No suitable example given. (210 pages)

L9 ANSWER 5 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-08469 BIOTECHDS
TITLE: New **human protein kinase** (designated 84573) polypeptides and nucleic acid molecules, useful for diagnosing, preventing or treating disorders involving aberrant protein kinase function, e.g. cancer or **cardiovascular** disorders;
involving vector-mediated gene transfer and **expression** in host cell for use in gene therapy
AUTHOR: TAYBER O
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: US 2004005624 8 Jan 2004
APPLICATION INFO: US 2003-460545 12 Jun 2003
PRIORITY INFO: US 2003-460545 12 Jun 2003; US 2002-388031 12 Jun 2002
DOCUMENT TYPE: Patent

LANGUAGE: English
OTHER SOURCE: WPI: 2004-081718 [08]
AB DERWENT ABSTRACT:
NOVELTY - An isolated nucleic acid molecule selected from (I), is new.

DETAILED DESCRIPTION - (I) comprises a nucleic acid molecule which: (a) comprises a nucleotide sequence at least 85% identical to a sequence of 5232 (S1) or 5229 (S3) bp fully defined in the specification; (b) comprises a fragment of at least 4400 nucleotides of S1 or S3; (c) encodes a polypeptide comprising a sequence of 1743 amino acids (S2) fully defined in the specification; (d) encodes a fragment at least 85% homologous to S2; or (e) encodes a naturally occurring allelic variant of the polypeptide comprising S2, where the nucleic acid molecule hybridizes to a nucleic acid molecule comprising S1 or S3, or its complement, under stringent conditions. INDEPENDENT CLAIMS are also included for: '(1) a host cell containing the new nucleic acid molecule; (2) an isolated polypeptide selected from: (a) a polypeptide encoded by a nucleic acid molecule comprising a sequence that is at least 85% identical to S1 or S3, or its complement; (b) a naturally occurring allelic variant of a polypeptide comprising S2, where the polypeptide is encoded by a nucleic acid molecule which hybridizes to a nucleic acid molecule comprising S1 or S3; and (c) a fragment which is at least 85% homologous to S2; (3) an antibody that selectively binds to the above polypeptide; (4) producing the above polypeptide, comprising culturing the host cell under conditions in which the nucleic acid molecule is **expressed**; (5) detecting the presence of the above polypeptide in a sample, comprising contacting the sample with a compound which selectively binds to the polypeptide, and determining whether the compound binds to the polypeptide in the sample; (6) a kit comprising a compound that selectively binds to the above polypeptide or that selectively hybridizes to the above nucleic acid molecule, and instructions for use; (7) detecting the presence of the above nucleic acid molecule in a sample, comprising contacting the sample with a nucleic acid probe or primer that selectively hybridizes to the nucleic acid molecule, and determining whether the nucleic acid probe or primer binds to the nucleic acid molecule in the sample; (8) identifying a compound that binds to the above polypeptide, comprising contacting a polypeptide, or a cell **expressing** the above polypeptide with a test compound; and determining whether the polypeptide binds to the test compound; (9) modulating the activity of the above polypeptide, comprising contacting a polypeptide or a cell **expressing** the polypeptide with a compound that binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide; and (10) identifying a compound that modulates the activity of the above polypeptide, comprising contacting the polypeptide with a test compound, and determining the effect of the test compound on the activity of the polypeptide to identify a compound that modulates the activity of the polypeptide.

BIOTECHNOLOGY - Preferred Nucleic Acid: The nucleic acid molecule further comprises a fragment of at least 4500 or at least 5000 nucleotides of S1 or S3. It encodes a fragment that is at least 90 or 95% homologous to S2. The nucleic acid molecule further comprises vector nucleic acid sequences. It comprises nucleic acid sequences that encode a heterologous polypeptide. Preferred Host Cell: The host cell is a non-human mammalian host cell. Preferred Polypeptide: The polypeptide comprises S2. It also comprises a fragment that is at least 90 or 95% homologous to S2. It comprises heterologous amino acid sequences. Preferred Antibody: The antibody is a monoclonal antibody. It comprises an immunologically active portion selected from an scFV fragment, a dcFV fragment, an Fab fragment and an F(ab')2 fragment. The antibody is selected from a chimeric antibody, a humanized antibody, a human antibody, a non-human antibody, and a single chain antibody. Preferred Method: In detecting the presence of the above polypeptide, the compound that binds to the polypeptide is an antibody. In detecting the presence of the nucleic acid molecule in a sample, the sample comprises mRNA

molecules and is contacted with a nucleic acid probe. In identifying a compound that binds to the polypeptide, the binding of the test compound to the polypeptide is detected by a method selected from: (a) detection of binding by direct detecting of test compound/polypeptide binding; (b) detection of binding using a competition binding assay; and (c) detection of binding using an assay for 84573-mediated signal transduction. Preparation: The nucleic acid molecule was prepared using standard isolation techniques.

ACTIVITY - Neuroprotective; Nootropic; Antiparkinsonian; Antidepressant; Antiasthmatic; Anabolic; Hypertensive; Cytostatic; Osteopathic; Antiinflammatory; **Cardiovascular**-Gen.; Hepatotropic; Virucide; Analgesic; Endocrine-Gen. No biological data given.

MECHANISM OF ACTION - Gene therapy.

USE - The composition and methods are useful in modulating cellular growth, differentiation and/or development. These may be used for diagnosing, preventing or treating conditions or disorders involving aberrant or deficient protein kinase function or **expression**, such as neurological disorders (e.g. depression, Alzheimer's disease or Parkinson's disease), adrenal disorders (e.g. Addison's disease or Cushing's syndrome), respiratory disorders (e.g. asthma), cellular **proliferative** and/or differentiative disorders (e.g. cancer), bone disorders, immune (e.g. inflammatory) disorders, **cardiovascular** disorders, endothelial cell disorders, liver disorders, viral diseases, pain or metabolic disorders. The polypeptides and nucleic acid molecules may also be used in screening assays, in predictive medicine, in monitoring clinical trials, in pharmacogenomics, in tissue typing or chromosomal mapping, or in forensic biology.

ADMINISTRATION - Polypeptide dosage may range from 0.001-30 (preferably 5-6) mg/kg of body weight. Antibody dosage may range from 10-20 (preferably 0.1) mg/kg of body weight. Administration can be parenteral (e.g. intravenous, intradermal or subcutaneous), oral, transdermal (e.g. topical), transmucosal (e.g. inhalation of aerosol or absorption of eye drop), or rectal.

EXAMPLE - No relevant example given. (58 pages)

L9 ANSWER 6 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2004:1154588 HCAPLUS
DOCUMENT NUMBER:	142:86650
TITLE:	Inhibition of protein kinase C-μ (protein kinase D; PKD) as a treatment for cardiac hypertrophy and heart failure
INVENTOR(S):	Mckinsey, Timothy A.; Olson, Eric; Vega, Rick B.
PATENT ASSIGNEE(S):	Board of Regents, the University of Texas System, USA; Myogen, Inc.
SOURCE:	PCT Int. Appl., 107 pp. CODEN: PIXXD2
DOCUMENT TYPE:	Patent
LANGUAGE:	English
FAMILY ACC. NUM. COUNT:	1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004112763	A2	20041229	WO 2004-US15715	20040519

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,

EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-472298P P 20030521

AB The invention provides for methods of treating and preventing cardiac hypertrophy and heart failure. MEF-2 and Class II histone deacetylases (HDACs) have been shown to have a major role in cardiac hypertrophy and heart disease, and inhibition of class II HDACs has been shown to have a beneficial, anti-hypertrophic effect. The invention provides the link between MEF-2 and class II HDACs, a kinase known as PKD. The invention further demonstrates that inhibitors of PKD inhibit cardiac hypertrophy and heart disease by inhibiting, in part, the fetal cardiac gene **expression** and cellular reorganization that occurs when MEF-2-dependent transcription is inhibited.

L9 ANSWER 7 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:650120 HCAPLUS

DOCUMENT NUMBER: 141:168962

TITLE: Single nucleotide polymorphisms as predictive diagnostics for adverse drug reactions and drug efficacy

INVENTOR(S): Stropp, Udo; Schwers, Stephan; Kallabis, Harald

PATENT ASSIGNEE(S): Bayer Healthcare AG, Germany

SOURCE: PCT Int. Appl., 349 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004067774	A2	20040812	WO 2004-EP539	20040123
WO 2004067774	A3	20041021		

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI

PRIORITY APPLN. INFO.: EP 2003-2212 A 20030131
EP 2003-2153 A 20030203

AB The invention provides diagnostic methods and kits including oligonucleotide and/or polynucleotides or derivs., including as well antibodies determining whether a human subject is at risk of getting adverse drug reaction after statin therapy or whether the human subject is a high or low responder or a good a or bad metabolizer of statins. Two hundred ninety-two polymorphic sites in a number of candidate genes show a strong correlation with **cardiovascular** disease and to individuals exhibiting low or high levels of adverse drug reactions. The invention provides further diagnostic methods and kits including antibodies determining whether a human subject is at risk for a **cardiovascular** disease. Still further the invention provides polymorphic sequences and other genes.

L9 ANSWER 8 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:453338 HCAPLUS

DOCUMENT NUMBER: 141:19612

TITLE: Crystal structure of **human** Polo-like **kinase** Plk1, Polo-box domain-binding phosphopeptide core sequences, and their therapeutic

uses for cancer
INVENTOR(S): Yaffe, Michael B.; Elia, Andrew E. H.; Rellos, Peter; Cantley, Lewis C.; Smerdon, Stephen J.; Mancke, Isaac
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA
SOURCE: PCT Int. Appl., 317 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004046317	A2	20040603	WO 2003-US36392	20031114

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:
US 2002-426132P P 20021114
US 2003-485641P P 20030708
US 2003-487899P P 20030717

OTHER SOURCE(S): MARPAT 141:19612

AB The present invention relates to therapeutic compds. and methods of use of these therapeutic compds. for treating cellular **proliferative** disorders. The invention also provides three-dimensional structures of a Polo-like kinase and methods for designing or selecting small mol. inhibitors using these structures, and the therapeutic use of such compds. The invention also includes a method for identifying phosphopeptide-binding domains by screening peptide libraries. The carboxy-terminal region of the cell cycle regulating kinase Plk-1 encodes a phosphopeptide recognition domain that consists of the non-kinase region of the protein (amino acids 326-603), called the Polo-box domain. The crystal structure of human Plk-1 Polo-box domain in complex with its optimal phosphothreonine-containing peptide was determined to identify the structural basis for Polo-box domain activity. Site-directed mutagenesis showed that phosphoserine/threonine-dependent binding is a general feature of Polo-box domain activity in the Plk family and is important for the function of the domain in kinase targeting to substrates and in in vitro activity of the kinase domain. A library of partially degenerate phosphopeptides was also used to identify phosphopeptide-binding modules mediating signaling in the DNA damage response pathway. Tandem BRCT domains in the proteins PTIP and BRCA1 were identified as phosphoserine- or phosphothreonine-specific binding modules that recognize a subset of ATM and ATR substrates following γ-irradiation

L9 ANSWER 9 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:60701 HCAPLUS
DOCUMENT NUMBER: 140:122772
TITLE: Protein and cDNA sequences of human enzymes and therapeutic use as modulators of cellular proliferation
INVENTOR(S): Hitoshi, Yasumichi; Jenkins, Yonchu; Markovtsov, Vadim
PATENT ASSIGNEE(S): Rigel Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 180 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007754	A2	20040122	WO 2003-US22164	20030714
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004126784	A1	20040701	US 2003-620052	20030714
PRIORITY APPLN. INFO.:			US 2002-395443P	P 20020712

AB The present invention provides protein and cDNA sequences of **human protein kinases** that regulate cellular proliferation. More particularly, the present invention is directed to nucleic acids encoding protein kinase C ζ (PKC-ζ), phospholipase C-β1 (PLC-β1), protein tyrosine kinase 2 (FAK), protein tyrosine kinase 2b (FAK2), casein kinase 2 (CK2), cMET tyrosine kinase (cMET), flap structure specific endonuclease 1 (FEN1), REV1 dCMP transferase (REV1), apurinic/apyrimidinic nuclease 1 (APE1), cyclin dependent kinase 3 (CDK3), PIM1 kinase (PIM1), cell division cycle 7 kinase (CDC7L1), cyclin dependent kinase 7 (CDK7), cytokine inducible kinase (CNK), potentially prenylated protein tyrosine phosphatase (PRL-3), serine threonine kinase 2 (STK2) or (NEK4), cyclin dependent serine threonine kinase (NKIAMRE), or histone acetylase (HBO1), which are involved in modulation of cell cycle arrest. The invention further relates to methods for identifying and using agents, including small mol. chemical compns., antibodies, peptides, cyclic peptides, nucleic acids, RNAi, antisense nucleic acids, and ribozymes, that modulate cell cycle arrest via modulation of protein kinase C ζ (PKC-ζ), phospholipase C-β1 (PLC-β1), protein tyrosine kinase 2 (FAK), protein tyrosine kinase 2b (FAK2), casein kinase 2 (CK2), cMET tyrosine kinase (cMET), flap structure specific endonuclease 1 (FEN1), REV1 dCMP transferase (REV1), apurinic/apyrimidinic nuclease 1 (APE1), cyclin dependent kinase 3 (CDK3), PIM1 kinase (PIM1), cell division cycle 7 kinase (CDC7L1), cyclin dependent kinase 7 (CDK7), cytokine inducible kinase (CNK), potentially prenylated protein tyrosine phosphatase (PRL-3), serine threonine kinase 2 (STK2) or (NEK4), cyclin dependent serine threonine kinase (NKIAMRE), or histone acetylase (HBO1), as well as to the use of **expression** profiles and compns. in diagnosis and therapy related to cell cycle regulation and modulation of cellular proliferation, e.g., for treatment of cancer and other diseases of cellular proliferation.

L9 ANSWER 10 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:250713 HCAPLUS
DOCUMENT NUMBER: 140:265666
TITLE: cDNA and protein sequences of human 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, 38555, 593, and mouse m1983 proteins, and their uses
INVENTOR(S): Kapeller-Libermann, Rosana; Hunter, John Joseph; Meyers, Rachel E.; Rudolph-Owen, Laura A.; Curtis, Rory A. J.; Olandt, Peter J.; Tsai, Fong Ying; Galvin, Katherine M.; Chun, Miyoung; Williamson, Mark J.; Silos-Santiago, Inmaculada; Bandaru, Rajasekhar
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 139 pp., Cont.-in-part of U.S. Ser. No. 336,153.
CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 57

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004058355	A1	20040325	US 2003-423543	20030425
US 6140056	A	20001031	US 1999-276400	19990325
US 6403358	B1	20020611	US 1999-412210	19991005
US 6300092	B1	20011009	US 1999-448076	19991123
US 2002042099	A1	20020411	US 2001-797039	20010228
US 6730491	B2	20040504		
US 2002151007	A1	20021017	US 2001-909743	20010720
US 2002081658	A1	20020627	US 2001-920346	20010731
US 2002086405	A1	20020704	US 2001-928531	20010813
US 2003096391	A1	20030522	US 2001-929218	20010814
US 2003017572	A1	20030123	US 2001-961656	20010924
US 2002077312	A1	20020620	US 2001-963159	20010925
US 2002173630	A1	20021121	US 2001-8016	20011108
US 2002164750	A1	20021107	US 2001-12055	20011113
US 6787345	B1	20040907	US 2001-3690	20011115
US 2003022286	A1	20030130	US 2002-60763	20020130
US 2003003477	A1	20030102	US 2002-105989	20020325
US 2002164632	A1	20021107	US 2002-121911	20020412
US 6607892	B2	20030819		
US 2003087382	A1	20030508	US 2002-217168	20020812
WO 2003027308	A2	20030403	WO 2002-US30054	20020923
WO 2003027308	A3	20050331		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003108934	A1	20030612	US 2002-278036	20021022
US 2003119147	A1	20030626	US 2003-336489	20030102
US 2003113790	A1	20030619	US 2003-336153	20030103

PRIORITY APPLN. INFO.:

US 1998-163821	B2	19980930
US 1999-117580P	P	19990127
US 1999-276400	A2	19990325
US 1999-365162	B1	19990730
US 1999-392189	B1	19990909
US 1999-412210	A3	19991005
US 1999-448076	A3	19991123
US 2000-186061P	P	20000229
US 2000-200688P	P	20000428
US 2000-205447P	P	20000519
US 2000-608921	B1	20000630
US 2000-221925P	P	20000731
US 2000-234922P	P	20000925
US 2000-235035P	P	20000925
US 2000-246669P	P	20001108
US 2000-711216	B1	20001109
US 2000-248325P	P	20001114
US 2000-248893P	P	20001115

US 2000-257511P	P	20001222
US 2001-260166P	P	20010105
US 2001-797039	A2	20010228
US 2001-845044	B1	20010427
US 2001-909743	A2	20010720
US 2001-920346	A2	20010731
US 2001-928531	B2	20010813
US 2001-929218	B2	20010814
US 2001-312539P	P	20010815
US 2001-963159	B2	20010925
US 2001-8016	A2	20011108
US 2001-12055	A2	20011113
US 2001-3690	A2	20011115
US 2002-60763	B2	20020130
US 2002-105989	A2	20020325
US 2002-121911	A2	20020412
US 2002-217168	A2	20020812
US 2002-278036	A2	20021022
US 2003-336489	A2	20030102
US 2003-336153	A2	20030103
WO 1999-US22923	A2	19990930
US 2001-961656	A	20010924

AB The invention provides isolated nucleic acids mols., designated 21910, 56634, 55053, 2504, 15977, 14760, 25501, 17903, 3700, 21529, 26176, 26343, 56638, 18610, 33217, 21967, h1983, m1983, 38555 and 593 nucleic acid mols. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing the same, host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which above genes has been introduced or disrupted. The invention still further provides isolated their encoded proteins, fusion proteins containing the same, and antigenic peptides and antibodies. 21910 Protein is a sequence homolog of membrane-associated guanylate kinase (MAGK). 56634 Protein is a sequence homolog of phosphatidylinositol 4-phosphate 5-kinase. 55053, 2504, 15977, 14760 And 3700 proteins are sequence homologs of protein kinases. 25501 Protein is a sequence homolog of transferases. 17903 Protein is a sequence homolog of aminopeptidases. 21529 Protein is a sequence homolog of adenylate cyclases. 26176 Protein is a sequence homolog of calpain proteases. 26343 Protein is a sequence homolog of oxidoreductases. 56638 Protein is a sequence homolog of neprilysin proteases. 18610 Protein is a sequence homolog of transient receptor potential ion channel family. 33217 Protein is a sequence homolog of AMP-binding enzymes. 21967 Protein is a sequence homolog of lysyl oxidases. Human and mouse 1983 (SLGP) proteins are sequence homologs of G protein-coupled receptors. 38555 And 593 proteins are sequence homologs of transport proteins. Diagnostic and therapeutic methods utilizing compns. of the invention are also provided.

L9 ANSWER 11 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:268235 HCAPLUS
DOCUMENT NUMBER: 140:281389
TITLE: Inhibition of protein kinase C-α for treatment of coronary and other diseases
INVENTOR(S): Haller, Herrmann; Menne, Jan
PATENT ASSIGNEE(S): Phenomiques G.m.b.H., Germany
SOURCE: Ger. Offen., 23 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

DE 10244453 A1 20040401 DE 2002-10244453 20020924
WO 2004028516 A2 20040408 WO 2003-DE3165 20030923
WO 2004028516 A3 20041111
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: DE 2002-10244453 A 20020924

AB The invention discloses the use of agents which reduce or inhibit the **expression** and/or activity of protein kinase C-α for treatment and/or prevention of coronary heart disease, heart attack, peripheral arterial occlusion, stroke, proteinuria-associated kidney diseases, diabetes-related damage and/or **cardiovascular** complications with patients with diabetes mellitus, **cardiovascular** complications with patients with hypertension and **cardiovascular** complications with patients with hypercholesterolemia.

L9 ANSWER 12 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2004:192742 HCAPLUS
DOCUMENT NUMBER: 141:306676
TITLE: Inhibitors of Protein Kinase Signaling Pathways
AUTHOR(S): Force, Thomas; Kuida, Keisuke; Namchuk, Mark; Parang, Keykavous; Kyriakis, John M.
CORPORATE SOURCE: Molecular Cardiology Research Institute, Tufts-New England Medical Center and Tufts University School of Medicine, Boston, MA, USA
SOURCE: Circulation (2004), 109(10), 1196-1205
CODEN: CIRCAZ; ISSN: 0009-7322
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. Protein kinases are enzymes that covalently modify proteins by attaching phosphate groups (from ATP) to serine, threonine, and/or tyrosine residues. In so doing, the functional properties of the protein kinase's substrates are modified. Protein kinases transduce signals from the cell membrane into the interior of the cell. Such signals include not only those arising from ligand-receptor interactions but also environmental perturbations such as when the membrane undergoes mech. deformation (ie, cell stretch or shear stress). Ultimately, the activation of signaling pathways that use protein kinases often culminates in the reprogramming of gene **expression** through the direct regulation of transcription factors or through the regulation of mRNA stability or protein translation. Protein kinases regulate most aspects of normal cellular function. The pathophysiol. dysfunction of protein kinase signaling pathways underlies the mol. basis of many cancers and of several manifestations of **cardiovascular** disease, such as hypertrophy and other types of left ventricular remodeling, ischemia/reperfusion injury, angiogenesis, and atherogenesis. Given their roles in such a wide variety of disease states, protein kinases are rapidly becoming extremely attractive targets for drug discovery, probably second only to heterotrimeric G protein-coupled receptors (eg, angiotensin II). Here, we will review the reasons for this explosion in interest in inhibitors of protein kinases and will describe the process of identifying novel drugs directed against kinases. We will specifically focus on disease states for which drug development has proceeded to the point of clin. or advanced preclin. studies.

REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-28808 BIOTECHDS
TITLE: New 14171 **human protein kinase** and nucleic acids encoding the protein, useful for treating viral infections, cellular growth related disorders, cancers, disorders related with programmed cell death, or autoimmune disorders;
vector-mediated protein-kinase gene transfer and **expression** in host cell for **recombinant** protein production, drug screening and gene therapy
AUTHOR: KAPELLER-LIBERMANN R
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: US 6630335 7 Oct 2003
APPLICATION INFO: US 2001-781882 12 Feb 2001
PRIORITY INFO: US 2001-781882 12 Feb 2001; US 2000-182096 11 Feb 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-810551 [76]
AB DERWENT ABSTRACT:

NOVELTY - An isolated nucleic acid molecule (I) comprising: (a) a sequence of 3860 or 2355 bp given in the specification, or its complement; or (b) a sequence which encodes a polypeptide comprising a sequence of 784 amino acids (II) or the sequence (II) having a substitution for aspartate at position 143, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) a vector comprising (I); (2) a host cell comprising the vector; and (3) a method of producing a polypeptide comprising culturing the host cell of (2) under conditions in which the nucleic acid molecule is **expressed** to produce the polypeptide.

WIDER DISCLOSURE - (1) antibodies that selectively bind protein kinase polypeptide and fragments; (2) a method for detecting protein kinase activity of **expression** in a biological sample; (3) a method for modulating protein kinase activity; (4) a diagnostic assay for identifying the presence or absence of a genetic lesion for mutation characterized by aberrant modification or mutation of a gene encoding a protein kinase, misregulation of a gene encoding a protein kinase, or aberrant post-translational modification of a protein kinase; (5) a method for identifying a compound that binds to or modulates protein kinase activity; (6) a method for identifying compound that modulates the **expression** of a protein kinase gene; and (7) compound identified by the screening methods.

BIOTECHNOLOGY - Preferred Nucleic Acid: (I) further comprises nucleic acid sequences encoding a heterologous polypeptide. (I) comprises a sequence encoding a polypeptide comprising (II). Preferred Vector: The vector of comprises a nucleic acid sequence, which regulates **expression** of the nucleic acid molecule. Preferred Host Cell: The host cell is preferably a mammalian host cell.

ACTIVITY - Virucide; Hepatotropic; Cardiant; Hypotensive; Antianginal; Cytostatic; Neuroprotective; Nootropic; Antiparkinsonian; Anticonvulsant; Immunosuppressive; Antiinflammatory; Dermatological. Preferred Vector: The vector of comprises a nucleic acid sequence, which regulates **expression** of the nucleic acid molecule.

MECHANISM OF ACTION - Protein Kinase; Gene Therapy.

USE - The protein kinase or the nucleic acid encoding the protein is useful for modulating cellular growth, differentiation and/or development, and for modulating cellular metabolic pathways, particularly for regulating one or more proteins involved in growth and metabolism. (I) is also useful as primers or hybridization probes for detecting protein kinase-encoding nucleic acids, in tissue typing, chromosome mapping or forensic biology. These are also useful for treating viral infections (e.g. hepatitis B), cellular growth related disorders (e.g.

heart failure, hypertension, atrial fibrillation, dilated and idiopathic cardiomyopathy or angina), **proliferative** or differentiative disorders such as cancer (e.g. liver, melanoma, prostate, cervical, breast, colon or sarcoma), disorders related with programmed cell death (e.g. Alzheimer's disease, Parkinson's disease or epilepsy), or autoimmune disorders (e.g. systemic lupus erythematosus).

ADMINISTRATION - Dosage is 0.001-30 mg/kg, preferably 1-10 mg/kg body weight. Administration can be through parenteral (e.g. intravenous, intradermal, subcutaneous), oral (e.g. inhalation), transdermal (topical), transmucosal or rectal routes.

EXAMPLE - No suitable example given.(50 pages)

L9 ANSWER 14 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:1007140 HCAPLUS
DOCUMENT NUMBER: 140:55595
TITLE: **Human protein kinase** B (PKB) Ser473 kinase and therapeutic uses thereof
INVENTOR(S): Feng, Jianhua; Hemmings, Brian Arthur; Hill, Michelle Mei Chih
PATENT ASSIGNEE(S): Novartis Forschungsstiftung, Zweigniederlassung Friedrich Miescher Institute for Biomedical Research, Switz.
SOURCE: PCT Int. Appl., 54 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003106669	A1	20031224	WO 2003-EP6193	20030612
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1516047	A1	20050323	EP 2003-740233	20030612
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				

PRIORITY APPLN. INFO.: GB 2002-13614 A 20020613
WO 2003-EP6193 W 20030612

AB The invention provides purified PKB Ser473 kinase and methods of purifying it. The methods involve the use of several sequential steps, including subcellular fractionation to isolate a plasma membrane fraction and the use of gel filtration or chromatog. that separates mols. according to their size or affinity.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 15 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:951182 HCAPLUS
DOCUMENT NUMBER: 140:13760
TITLE: Sequences of a **human protein kinase** sequence homolog and uses in diagnosis, therapy and drug screening
INVENTOR(S): Liou, Jiing-Ren
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003100046	A1	20031204	WO 2003-EP5349	20030522

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2002-382605P P 20020524
US 2002-394249P P 20020709
US 2002-403388P P 20020815

AB The invention provides protein and cDNA sequences of a novel **human protein kinase** sequence homolog. The invention also provides reagents and methods of regulating a **human protein kinase** sequence homolog. Reagents that regulate **human protein kinase** and reagents which bind to **human protein kinase** gene products can play a role in preventing, ameliorating, or correcting dysfunctions or diseases including **cardiovascular** disorders, cancer, diabetes, peripheral and central nervous system disorders, hematol. disorders, genitourol. disorders, and COPD.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:551621 HCAPLUS
DOCUMENT NUMBER: 139:129924
TITLE: CRISSP method for detecting remote sequence homologs, **human protein kinase** sequences identified with the method, and diagnostic and drug screening uses
INVENTOR(S): Grigoriev, Igor Vyacheslavovich; Sudarsanam, Sucha
PATENT ASSIGNEE(S): Sugen Inc., USA
SOURCE: PCT Int. Appl., 491 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003057841	A2	20030717	WO 2002-US41687	20021231
WO 2003057841	C1	20040401		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ; VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004009549 A1 20040115 US 2002-334143 20021231
WO 2004069154 A2 20040819 WO 2003-US2234 20030128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-343169P P 20011231

AB The present invention relates to novel methods for detecting remote polypeptide homologs comprising anal. of conserved secondary structure pattern in a protein family, and conserved active site amino acid residues. The anal. are used to identify conserved residues embedded into the secondary structure pattern (CRISSP), which are used to detect remote homologs of the referent protein family. The present invention also relates to **human protein kinases** and protein kinase-like enzymes, nucleotide sequences encoding the protein kinase polypeptides, as well as various products and methods useful for the diagnosis and treatment of various protein kinase-related diseases and conditions. The CRISSP method has been applied to the human genome database and 87 novel kinase sequences have been identified. The partial or complete sequences of these kinases are provided together with their classification, predicted protein structure, and encoding nucleotide sequences. Through the use of a bioinformatics strategy, mammalian protein kinases have been identified and their protein structure predicted.

L9 ANSWER 17 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:991157 HCAPLUS
DOCUMENT NUMBER: 140:35917
TITLE: Antisense oligonucleotides inhibiting **human protein kinase** DRAK1 **expression** and their therapeutic uses
INVENTOR(S): Bennett, C. Frank; Freier, Susan M.; Dobie, Kenneth W.
PATENT ASSIGNEE(S): Isis Pharmaceuticals Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 56 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003232773	A1	20031218	US 2002-174559	20020617

PRIORITY APPLN. INFO.: US 2002-174559 20020617

AB Antisense compds., compns. and methods are provided for inhibiting the **expression** of **human protein kinase** DRAK1. The compns. comprise antisense compds., particularly antisense oligonucleotides, targeted to nucleic acids encoding protein kinase DRAK1. Methods of using these compds. for modulation of protein kinase DRAK1 **expression** and for treatment of diseases associated with **expression** of protein kinase DRAK1 are provided. Antisense oligonucleotides were designed targeting different regions of the protein kinase DRAK1 mRNA sequence and may be modified to contain phosphorothioate linkages, 2'-O-methoxyethyl sugar moiety, and 5-methylcytosine bases. The

antisense oligonucleotides demonstrated at least 35% inhibition of **human protein kinase** DRAK1 **expression** . The invention provides methods for synthesis of the antisense oligonucleotides. The antisense oligonucleotides could be used for treatments of hyperproliferative disease, cancer, aberrant apoptosis, and neurol. disease.

L9 ANSWER 18 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:551171 HCAPLUS
DOCUMENT NUMBER: 139:95471
TITLE: Methods using protein kinase C (PKC)-δ and -ε inhibitors for inhibiting cardiac disorders
INVENTOR(S): Steinberg, Susan F.; Sabri, Abdelkarim
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 34 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003134774	A1	20030717	US 2002-172696	20020614
PRIORITY APPLN. INFO.:			US 2001-298509P	P 20010615

AB The invention provides methods for (1) inhibiting the onset of a cardiac disorder in a subject afflicted with cardiac hypertrophy, (2) reducing the activity of PKC-δ or PKC-ε present in cardiomyocytes of a subject afflicted with cardiac hypertrophy, and (3) reducing the activity of PKC-δ or PKC-ε in a hypertrophic cardiomyocyte by administering an agent that specifically reduces the activity of PKC-δ or PKC-ε present therein. The invention also provides an article of manufacture inhibiting the onset of a cardiac disorder in a subject afflicted with cardiac hypertrophy.

L9 ANSWER 19 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:92356 HCAPLUS
DOCUMENT NUMBER: 138:148735
TITLE: Protein and cDNA sequences of **human protein kinase** JNK1 and JNK2 and use
INVENTOR(S): Karin, Michael; Hibi, Masahiko; Lin, Anning; Davis, Roger; Derijard, Benoit
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: U.S., 87 pp., Cont.-in-part of U.S. 5,534,426.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6514745	B1	20030204	US 1994-220602	19940325
US 5534426	A	19960709	US 1993-94533	19930719
CA 2167302	AA	19950202	CA 1994-2167302	19940718
WO 9503323	A1	19950202	WO 1994-US8119	19940718
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
WO 9503324	A1	19950202	WO 1994-US8120	19940718
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE,				

HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL,
NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, UZ, VN
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,
BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU	9473380	A1	19950220	AU 1994-73380	19940718
AU	700137	B2	19981224		
AU	9473668	A1	19950220	AU 1994-73668	19940718
AU	685484	B2	19980122		
EP	726908	A1	19960821	EP 1994-923544	19940718
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
EP	728143	A1	19960828	EP 1994-922622	19940718
EP	728143	B1	20030305		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US	5593884	A	19970114	US 1994-276860	19940718
JP	09500535	T2	19970121	JP 1995-505263	19940718
JP	2986548	B2	19991206		
JP	09507384	T2	19970729	JP 1995-505262	19940718
JP	2925740	B2	19990728		
JP	2000023681	A2	20000125	JP 1999-139329	19940718
CA	2166981	C	20001107	CA 1994-2166981	19940718
AT	233785	E	20030315	AT 1994-922622	19940718
PT	728143	T	20030630	PT 1994-922622	19940718
ES	2191032	T3	20030901	ES 1994-922622	19940718
US	5605808	A	19970225	US 1995-444393	19950519
US	5837244	A	19981117	US 1996-711893	19960912
US	5804399	A	19980908	US 1997-799913	19970213
US	5994513	A	19991130	US 1998-150200	19980908
US	6001584	A	19991214	US 1998-150201	19980908
US	6193965	B1	20010227	US 1999-452370	19991130
US	6342595	B1	20020129	US 1999-461649	19991214
US	2002192218	A1	20021219	US 2001-861097	20010518
US	6863888	B2	20050308		
US	2003044788	A1	20030306	US 2001-861098	20010518
US	6846644	B2	20050125		
US	2003190735	A1	20031009	US 2001-861012	20010518
US	6706509	B2	20040316		
US	2002160397	A1	20021031	US 2002-51989	20020116
US	6610505	B2	20030826		
US	2005032123	A1	20050210	US 2003-648823	20030825

PRIORITY APPLN. INFO.:	US 1993-94533	A2	19930719
	US 1994-220602	A	19940325
	JP 1995-505263	A3	19940718
	US 1994-276860	A3	19940718
	WO 1994-US8119	W	19940718
	WO 1994-US8120	W	19940718
	US 1995-444393	A1	19950519
	US 1997-799913	A3	19970213
	US 1998-150200	A3	19980908
	US 1998-150201	A1	19980908
	US 1999-461649	A1	19991214
	US 2002-51989	A1	20020116

AB The present invention provides protein and cDNA sequences of a novel **human protein kinase** (JNK) which phosphorylates the c-Jun N-terminal activation domain. JNK1 is characterized by having a mol. weight of 46 kD (as determined by reducing SDS-polyacrylamide gel electrophoresis (PAGE)) and having serine and threonine kinase activity. Specifically, JNK1 phosphorylates serine residues 63 and 73 of c-Jun. Since the product of the jun proto-oncogene is a transactivator protein which binds at AP-1 sites, regulation of c-Jun activation may be important in affecting normal gene **expression** and growth control in a cell. The discovery of JNK provides a means for identifying compns. which affect JNK activity, thereby affecting c-Jun activation and subsequent activation of genes associated with AP-1 sites.

The identification of JNK now allows the detection of the level of specific kinase activity associated with activation of c-Jun and AP-1. In addition, the invention provides a method of treating a cell **proliferative** disorder associated with JNK by administering to a subject with the disorder, a therapeutically effective amount of a reagent which modulates JNK activity. The invention also provides a synthetic peptide comprising the JNK binding region on c-Jun which corresponds to amino acids 33-79. The peptide is useful as a competitive inhibitor of the naturally occurring c-Jun in situations where it is desirable to decrease the amount of c-Jun activation by JNK. The invention also describes JNK2, a novel protein kinase with activity similar to JNK1 and having a mol. weight of 55 kD.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:44715 HCAPLUS

DOCUMENT NUMBER: 138:285793

TITLE: Different regulation of PKC isoenzymes and MAPK by PSK and IL-2 in the **proliferative** and cytotoxic activities of the NKL human natural killer cell line

AUTHOR(S): Garcia-Lora, Angel; Martinez, Marisol; Pedrinaci, Susana; Garrido, Federico

CORPORATE SOURCE: Hospital Universitario Virgen de las Nieves, Servicio de Analisis Clinicos e Inmunologia, Universidad de Granada, Granada, 18014, Spain

SOURCE: Cancer Immunology Immunotherapy (2003), 52(1), 59-64
CODEN: CIIMDN; ISSN: 0340-7004

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The activation of natural killer (NK) cells and induction of cytotoxicity are complex processes whose mol. mechanisms have not been clearly elucidated. Stimulation of the NKL human NK cell line with interleukin-2 (IL-2) or protein-bound polysaccharide K (PSK) leads to sustained growth and cytolytic activity in comparison to unstimulated NKL cells. The authors' previous results shown that IL-2 and PSK regulate different nuclear transcription factors in NKL cells, and that the signal transduction pathway used by these inducers is different. To determine the mol. basis for the different action of IL-2 and PSK, the authors investigated the upstream effects generated in human NKL cells by IL-2 and PSK on protein kinase C (PKC) isoenzymes and mitogen-activated protein kinases (MAPK). Here they report the profile of unstimulated NKL cells as: PKCβ> PKCα> PKCδ = PKCε. The PKCη form was not **expressed**. The effects of PSK and IL-2 on these isoenzymes were different. IL-2 increased the **expression** of PKCα, PKCδ, and PKCε, whereas PSK decreased the **expression** of PKCα, and also increased PKCδ and PKCε to higher levels than did IL-2. In MAPK **expression** the authors found that unstimulated NKL cells have the following profile: ERK2> ERK6> p38γ> p38β> ERK1. ERK3, ERK3 rel, ERK5/ERK4 and p38δ were not **expressed**. IL-2 decreased the **expression** of ERK2, whereas PSK did not, and both agents increased the **expression** of ERK3. Thus, PSK and IL-2 produce different variations in PKC isoenzymes and MAPK in NKL cells.

REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 21 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 2

ACCESSION NUMBER: 2003-06738 BIOTECHDS

TITLE: New **human protein kinase**-like polypeptide for treating, preventing or ameliorating cancer,

central nervous system disorders, obesity, diabetes, **cardiovascular** disorders and chronic obstructive pulmonary disease;
plasmid-mediated **recombinant** protein gene transfer and **expression** in Pichia pastoris for disease diagnosis and gene therapy

AUTHOR: SMOLYAR A
PATENT ASSIGNEE: BAYER AG
PATENT INFO: WO 2002081704 17 Oct 2002
APPLICATION INFO: WO 2002-EP2887 15 Mar 2002
PRIORITY INFO: US 2001-337124 10 Dec 2001; US 2001-276055 16 Mar 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-040700 [03]

AB DERWENT ABSTRACT:
NOVELTY - A purified **human protein kinase**-like polypeptide (I) comprising a sequence (S1) of 286 or 1394 amino acids, given in the specification, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) an isolated polynucleotide (II) consisting of: (i) a polynucleotide encoding a protein kinase-like polypeptide comprising S1 or a sequence having 35 % identity to S1; (ii) a polynucleotide sequence (S2) comprising 858, 5475 or 4216 nucleotides, given in the specification; (iii) a polynucleotide which hybridizes under stringent conditions to the (i) or (ii); (iv) a polynucleotide which deviates from (i) - (iii) due to degeneration of genetic code; or (v) fragments, derivatives or allelic variants of (i) - (iv); (2) an **expression** vector (III) comprising (II); (3) a host cell (IV) containing (III); (4) a substantially purified **human protein kinase**-like polypeptide, encoded by (II); (5) producing (I); (6) detecting (M1) (I) or (II), by contacting a biological sample with a reagent which specifically interacts with (I) or (II); (7) a diagnostic kit for conducting M1; (8) reducing (M2) the activity of (I), by contacting a cell with a reagent which specifically binds to (I) or (II); (9) a reagent (R) that modulates the activity of (I) or (II), identified using (I) or (II); (10) a pharmaceutical composition (PC) comprising (III) or (R); (11) a cDNA encoding (I); (12) a fusion protein (VI) comprising (I); (13) detecting (M3) a coding sequence for (I), by hybridizing a polynucleotide comprising 11 contiguous nucleotides of S2 to nucleic acid material of a biological sample, thus forming a hybridization complex, and detecting the complex; (14) detecting (M4) a polypeptide comprising S1, by contacting a biological sample with a reagent that specifically binds to the polypeptide to form a complex and detecting the complex; (15) a kit (K1) for detecting a coding sequence for (I) comprises a polynucleotide comprising 11 contiguous nucleotides of S2, and instructions for use; (16) a kit (K2) for detecting (I) comprises an antibody which specifically binds to (I), and instructions for use; and (17) screening for agents which can modulate the activity of **human protein kinase**-like protein, by contacting the test compound with a polypeptide comprising S1 or a sequence having 35 % identity to S1, and detecting the binding of test compound to (I) or detecting the activity of the polypeptide.

WIDER DISCLOSURE - Variants of (I) are also disclosed.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing (IV) under conditions suitable for the **expression** of (I) and recovering (I) from the host cell culture (claimed). Preferred Method: In M2, the product is a polypeptide or RNA. (R) is an antibody, antisense oligonucleotide or a ribozyme, and the cell is in vitro or in vivo. M3 further comprises amplifying the nucleic acid material before hybridization. In M4, the reagent is an antibody.

ACTIVITY - Cytostatic; Neuroprotective; Anorectic; Cardiant; Antidiabetic. The ability of **human protein kinase**-like antisense oligonucleotides to suppress the growth of

cancer cell line such as human colon cancer cell line HCT116 was tested. Cells were cultured in RPMI-1640 with 10-15 % fetal calf serum at a concentration of 10000 cells per ml in a volume of 0.5 ml and kept at 37 degreesC in a 95 % air/5 %/CO2 atmosphere. Phosphorothioate oligoribonucleotides were synthesized using phosphoroamidite chemistry. A sequence of 24 bases complementary to the nucleotides at position 1 - 24 of a sequence comprising 858, 5475 or 4216 nucleotides, given in the specification, was used as the test oligonucleotide. As a control, another (random) sequence 5'-tcaactgactagatgtacatggac-3' was used. The oligonucleotides were added to the culture medium at a concentration of 10 microM once per day for seven days. The addition of the test oligonucleotide for seven days resulted in significantly reduced **expression** of **human protein kinase**-like as determined by Western blotting. This effect was not observed with the control oligonucleotide. After 3 - 7 days, the number of cells in the cultures were counted. The number of cells in cultures treated with the test oligonucleotide was compared with the number of cells in cultures treated with the control oligonucleotides. The results showed that the number of cells in cultures treated with the test oligonucleotide was not more than 30 % of control, indicating that the inhibition of **human protein kinase**-like had an anti-**proliferative** effect on cancer cells.

MECHANISM OF ACTION - Protein kinase modulator (claimed); Gene therapy.

USE - Nucleic acid (II) encoding (I) is useful for detecting a polynucleotide encoding (I) in a biological sample. (I) and (II) are useful for screening for agents which decrease or modulate the activity of **human protein kinase**-like polypeptide. A pharmaceutical composition (PC) comprising an **expression** vector (III) containing (II) or a reagent (R) that modulates the activity of (I) or (II), is useful for the preparation of a medicament for modulating the activity of **human protein kinase**-like in a disease such as cancer, central nervous system (CNS) disorder, chronic obstructive pulmonary disease (COPD), obesity, diabetes and **cardiovascular** disorder. (R) is useful for reducing the activity of **human protein kinase**-like protein, and for detecting (I). (R) is also useful for treating a **human protein kinase**-like dysfunction related disease including cancer, CNS disorder, COPD, obesity, diabetes and **cardiovascular** disorder. (I) (encoded by (II)) is useful for screening for agents which modulate an activity of **human protein kinase**-like protein (all claimed). (I) is useful for treating the above mentioned disorders and to screen for **human protein kinase**-like activators and inhibitors. (I) or (II) is useful for identifying test compounds which act as agonists or antagonists, for raising specific antibodies, and as a bait protein in a two-hybrid or three-hybrid assay. (II) is useful in diagnostic assays for detecting diseases and abnormalities or susceptibility to disease and abnormalities related to the presence of mutations in (II). A fusion protein (VI) comprising (I) is useful for generating antibodies against (I) and in various assay systems.

ADMINISTRATION - Administered through oral, intravenous, intramuscular, intra-arterial, intramedullary, intrathecal, intraventricular, transdermal, subcutaneous, intraperitoneal, intranasal, parenteral, topical, sublingual or rectal routes. Dosage is 0.1 micrograms - 100 mg, up to a total dose of 1 g.

EXAMPLE - Pichia pastoris **expression** vector pPICZB was used to produce large quantities of **recombinant human protein kinase**-like polypeptides in yeast. The protein kinase-like protein-encoding DNA sequence was derived from a sequence comprising 858, 5475 or 4216 nucleotides, fully defined in the specification. Before insertion into vector pPICZB, the DNA sequence was modified to contain at its 5'-end, an initiation codon and at its 3'-end

an enterokinase cleavage site, His6 reporter tag and a termination codon. Moreover, at both termini, recognition sequences for restriction endonucleases were added and after digestion of the multiple **cloning** site of pPICZB with the corresponding restriction enzymes, the modified DNA sequence was ligated into pPICZB. This **expression** vector was designed for inducible **expression** in P. pastoris, driven by a yeast promoter. The resulting pPICZ/md-His6 vector was used to transform the yeast. The yeast was cultivated under usual conditions in 5 liter shake flasks and the recombinantly produced protein was isolated from the culture by affinity chromatography (Ni-NTA-Resin) in the presence of 8 M urea. The bound polypeptide was eluted with buffer, pH 3.5, and neutralized. Separation of the polypeptide from the His6 reporter tag was accomplished by site-specific proteolysis using enterokinase. Purified **human protein kinase**-like polypeptide was obtained. (143 pages)

L9 ANSWER 22 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-01162 BIOTECHDS
TITLE: Novel **human protein kinase** polypeptide, designated 58848, useful for treating diseases including cellular **proliferative**, bone metabolism, **cardiovascular**, neurological, and hematopoietic neoplastic disorders;
vector-mediated **recombinant** protein gene transfer and **expression** in mammal cell for use in drug screening, gene therapy, pharmacogenetics, mapping and forensics
AUTHOR: KAPELLER-LIBERMANN R; ACTON S
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: WO 2002055713 18 Jul 2002
APPLICATION INFO: WO 2001-US44346 26 Nov 2001
PRIORITY INFO: US 2000-254401 8 Dec 2000; US 2000-254401 8 Dec 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-590676 [63]
AB DERWENT ABSTRACT:
NOVELTY - **Human protein kinase** polypeptide (I), designated 58848, having a polypeptide encoded by polynucleotide having 80 % identity to a 1247 or 1047 base pair sequence (S1)/its complement, naturally occurring allelic variant of a 348 residue amino acid sequence (S2), both given in the specification, and encoded by polynucleotide that hybridizes to S1/its complement, or fragment of S2 having 15 contiguous amino acids, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following: (1) isolated nucleic acid molecule (II) encoding (I) or a polypeptide comprising S2 and comprising a fragment of at least 300 nucleotides of S1; (2) a host cell (III) containing (II); (3) a non-human mammalian host cell (IV) containing (II); (4) an antibody (V) which selectively binds to (I); (5) producing (I), comprising culturing (III) under **expression** conditions, and recovering the polypeptide; (6) detecting (M1) the presence of (I) in a sample, comprising contacting the sample with a compound which selectively binds to (I), and determining if the compound binds to (I); (7) detecting (M2) the presence of (II) in a sample, comprising contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule, and determining if the nucleic acid probe or primer binds to a nucleic acid molecule in the sample; (8) a kit (VI) comprising a compound which selectively binds to (I) or selectively hybridizes to (II) and instructions for use; (9) identifying (M3) a compound which binds to (I), by contacting (I), or a cell **expressing** (I) with a test compound, and determining if (I) binds to the test compound; and (10) modulating (M4) the activity of (I) by contacting (I) or a cell **expressing** (I) with a compound which binds to (I) in a sufficient

concentration to modulate the activity of (I).

WIDER DISCLOSURE - (1) nucleic acid constructs that includes (II); (2) vectors containing (II); (3) isolated nucleic acid molecules that are antisense to (II); (4) an amino acid sequence that is substantially identical to S2; (5) 58848 polypeptides or fragments operatively linked to non-58848 polypeptides to form fusion proteins; (6) fragments of (V); (7) an isolated nucleic acid molecule complement to (S1); (8) nucleic acid molecules encoding other 58848 family members having a nucleotide sequence which differs from (I); (9) labeled or molecular beacon oligonucleotide primer and probe molecules; (10) non-human transgenic animals, useful for studying the function and/or activity of a 58848 protein and for identifying modulators of 58848 activity; (11) population of cells from the transgenic animals of (10); (12) novel agents identified by screening assays using (I); and (13) kits for detecting the presence of 58848 in a sample.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing a mammalian host cell under conditions in which the nucleic acid molecule is **expressed** (claimed). Preferred Polypeptide: (I) further comprises heterologous amino acid sequences. Preferred Nucleic Acid: (II) further comprises vector nucleic acid sequences or a nucleic acid sequences encoding a heterologous polypeptide. Preferred Method: In M1, the compound which binds to (I) is an antibody. In M2, the sample comprises mRNA molecules and is contacted with a nucleic acid probe. In M3, the binding of the test compound to the polypeptide is detected by detection of binding by direct detecting of test compound/polypeptide binding, using a competition binding assay, and using an assay for 58848-mediated activation of protein kinase activity.

ACTIVITY - Cytostatic; Antidiabetic; Immunosuppressive; Antiatherosclerotic; Hypotensive; Cardiant; Vasotropic; Nootropic; Neuroprotective; Anticonvulsant; Antibacterial; Hepatotropic; Virucide; Antiinflammatory; Anti-HIV (human immunodeficiency virus); Endocrine; Anti-Parkinsonian; Osteopathic.

MECHANISM OF ACTION - Modulator of activity of (I) (claimed); Gene therapy. No biological data is given.

USE - (I) is useful for identifying a compound which modulates the activity of (I), by contacting (I) with a test compound, and determining the effect of the test compound on the activity of (I). (I) is useful for identifying a compound which binds to (I). (All claimed). (I) is useful for modulating 58848-mediated activities which are useful for developing diagnostic and therapeutic agents for protein kinase associated or other 58848-associated disorders such as cellular **proliferative** and/or differentiate disorders e.g. cancer, leukemia; hormonal disorders e.g. diabetes; immune disorders e.g. autoimmune disease; blood vessel disorders e.g. atherosclerosis, hypertension; platelet disorders; **cardiovascular** disorders e.g. cardiac hypertrophy, heart failure; neurological disorders e.g. ischemia, Alzheimer's disease, Parkinson's disease, Huntington's disease, acquired immunodeficiency syndrome (AIDS); bone metabolism disorders e.g. rickets, osteoporosis, cirrhosis; hematopoietic neoplastic disorders e.g. Hodgkin's disease, acute leukemia; liver disorders e.g. Gaucher's disease, viral diseases e.g. Hepatitis B; pain or metabolic disorder e.g. inflammation, hyperalgesia. (I) is useful for producing antibodies which are useful for isolating and detecting 58848 polypeptides, for modulating 58848 activity and diagnostically to monitor protein levels in tissues. (I) is useful as bait proteins in a two-hybrid or three-hybrid assay. (I) is also useful for treating disorders where there is excessive or insufficient production of 58848 substrate, producing 58848 inhibitors and for screening drugs or compounds which modulate 58848 activity which are useful in an appropriate animal model to determine the efficacy, toxicity, side effects or mechanism of action of treatment with the drugs. (II) is useful for **expressing** a 58848 protein, for detecting a 58848 mRNA or a genetic alteration in the gene and to modulate 58848 activity. Fragments of (II) are useful in chromosome

mapping, tissue typing and in forensic identification of a biological sample. 58848 molecules are useful in screening assays, predictive medicine (e.g. diagnostic assays, prognostic assays, monitoring clinical trails, and pharmacogenetics), and methods of treatment (e.g. therapeutic and prophylactic). 58848 molecules are useful as markers of disorders or disease states, as markers of drug activity, or as markers of the pharmacogenomic profile of the subject.

ADMINISTRATION - (I) is administered at a dose of 0.001-30, preferably 1-10 mg/kg and (V) is administered at a dose of 0.1 mg/kg, by intravenous, intradermal, oral (e.g. inhalation), transdermal (topical), transmucosal or rectal route. (104 pages)

L9 ANSWER 23 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-12936 BIOTECHDS
TITLE: Novel isolated **human protein kinase**, designated 59079 or 12599 polypeptide, useful as diagnostic and therapeutic agents for preventing **cardiovascular** diseases, **proliferative** disorders, and protein kinase disorders; **recombinant** protein production and sense and antisense sequence for use in gene therapy
AUTHOR: KAPELLER-LIBERMANN R; ACTON S L
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: US 2002168742 14 Nov 2002
APPLICATION INFO: US 2002-77130 15 Feb 2002
PRIORITY INFO: US 2002-77130 15 Feb 2002; US 2001-269201 15 Feb 2001
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-298729 [29]
AB DERWENT ABSTRACT:

NOVELTY - An isolated **human protein kinase**, 59079 or 12599 polypeptide (I), encoded by nucleic acid molecule comprising at least 85 % identity to a 8106, 7893, 24120 or 23907 nucleotide sequence (S1), given in the specification, or its complement, a naturally occurring variant of polypeptide having a 2630 or 7968 amino acid sequence (S2), given in the specification, or its fragment, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1) an isolated nucleic acid molecule (II) comprising a sequence having at least 85 % identity to S1, a sequence comprising a fragment of at least 300 nucleotides of S1, a sequence encoding (I), or a nucleic acid molecule which encodes a complement of the above, under stringent conditions; (2) a host cell (III), preferably non-human mammalian host cell containing (II); (3) producing (I); (4) an antibody (Ab) which selectively binds (I); (5) detecting the presence of (II) in a sample, by contacting the sample with nucleic acid probe or primer (P) which selectively hybridizes to (II), and determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample; (6) a kit (IV) comprising a compound which selectively binds (I) or a compound which selectively hybridizes to (II), and instructions for use; (7) identifying a compound which binds to (I), by contacting (I) or a cell **expressing** (I) with a test compound and determining whether (I) binds to the test compound; and (8) modulating the activity of (I), by contacting (I) or a cell **expressing** (I) with a compound which binds to (I) in a sufficient concentration to modulate the activity of (I).

WIDER DISCLOSURE - (1) an isolated nucleic acid molecule antisense to (II); (2) nucleic acid constructs or vectors including (II); (3) a two-dimensional array having a number of addresses, each having a unique capture probe; (4) molecular beacon oligonucleotide primer and probe molecules; (5) assays for determining a genetic alteration in (I) or (II); (6) analyzing a sample by contacting the sample with the above array and detecting binding of the sample to the array; (7) detectably labeled 59079 or 12599 probes and primers; (8) 59079 or 12599 chimeric or

fusion proteins; (9) non-human transgenic animals comprising (II), and a population of cells from the transgenic animal; (10) novel agents identified by the screening methods; (11) determining if a subject is at a risk for a disorder related to a lesion in or the misexpression of a gene encoding 59079 or 12599; (12) monitoring the influence of agents (e.g. drugs) on the **expression** or activity of 59079 or 12599 protein; (13) analyzing a number of capture probes, and analyzing 59079 or 12599, e.g. structure, function or relatedness to other nucleic acid or amino acid sequences; (14) a set of oligonucleotides for identifying single nucleotide polymorphism; (15) a computer readable record of a 59079 or 12599 sequence that includes recording the sequence on a computer-readable matrix; (16) making the above computer readable record; (17) a medium for holding instructions for performing a method for determining whether the subject has a protein kinase receptor-associated or another 59079 or 12599-associated disease or disorder, preferably in an electronic system or in a network; (18) a business method for determining whether the subject has a protein kinase receptor-associated or another 59079 or 12599-associated disease or disorder; and (19) an array comprising a 59079 or 12599 sequence.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing (III) under conditions in which (II) is **expressed** (claimed). Preferred Method: The sample comprises mRNA molecules, and is contacted with a nucleic acid probe. Binding of test compound with (I) is detected by direct binding of test compound/polypeptide binding, detection of binding using a competition binding assay and a detection of binding using an assay for 59079- or 12599-mediated signal transduction. Preferred Sequence: (I) further comprises heterologous amino acid sequences. (II) further comprises vector nucleic acid sequences and a nucleic acid sequence encoding the heterologous polypeptide.

ACTIVITY - Cardiant; Antiatherosclerotic; Cytostatic; Anti-HIV; Hemostatic; Immunosuppressive; Antianemic; Antidiabetic; Antipsoriatic; Antiinflammatory; Antirheumatic; Antiarthritic; Neuroprotective.

MECHANISM OF ACTION - Gene therapy; modulator of **expression** or activity of 59079 or 12599 molecules. No biological data is given..

USE - Ab is useful for detecting the presence of (I) in a sample. (I) is useful for identifying a compound which modulates the activity of (I). (All claimed.) (I) and (II) are useful as diagnostic and therapeutic agents for preventing a disease or condition associated with an aberrant or unwanted 59079 or 12599 activity in a subject, including **cardiovascular** diseases such as heart failure, and myocardial infarction; disorders involving blood vessels such as atherosclerosis, and Kaposi's sarcoma; blood platelets disorder such as thrombocytopenia, leukemia, Hodgkin's disease, hemolytic anemia; cellular **proliferative** disorders such as cancer; and protein kinase disorders such as autoimmune disorders, diabetes mellitus, psoriasis, inflammatory bowel disease, rheumatoid arthritis, and multiple sclerosis. (I), (II) and Ab are useful in screening assays, detection assays (e.g. forensic biology), and predictive medicine (e.g. diagnostic assays, prognostic assays, and monitoring clinical trials and pharmacogenomics). (I) and Ab are useful as reagents for diagnosing and treating 59079 or 12599-mediated disorders. (I) and (II) are useful as query sequences to perform a search against public databases to identify other family members or related sequences. (I) is useful as an immunogen to generate Ab, and as a bait protein in yeast two-hybrid or three-hybrid assay to identify other proteins which bind to or interact with 59079 or 12599. (II) is useful as hybridization probe to identify (II), or as polymerase chain reaction (PCR) primer for the amplification or mutation of (II). (II) is useful in gene therapy, to **express** (I), to detect 59079 or 12599 mRNA or a genetic alteration in a 59079 or 12599 gene, and to modulate 59079 or 12599 activity. (II) is useful in chromosome mapping, to identify an individual from a minute biological sample (tissue typing), and to aid in forensic identification of the biological sample. Ab is useful to isolate and purify (I), to detect (I) and to

diagnostically monitor protein levels in tissue as part of a clinical testing procedure. Fragments of (II) are useful as hybridization probes and primers. (I) and (II) are useful as markers of disorders or disease states, drug activity and pharmacogenomic profile of a subject. (IV) is useful for producing non-human transgenic animals.

ADMINISTRATION - (I) is administered at a dose of 0.001-30, preferably 5-6 mg/kg, through parenteral, oral, transdermal, systemic, transmucosal or rectal route.

EXAMPLE - None given. (119 pages)

L9 ANSWER 24 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2002-17073 BIOTECHDS
TITLE: A new **human protein kinase** designated H2LAU20 is useful to treat diseases associated with the polypeptide such as bone loss including osteoporosis, and inflammatory, **cardiovascular** and neurological diseases; **recombinant** protein-kinase production for use in therapy
AUTHOR: BRUN K A; CREASY C L; DUNNINGTON D J
PATENT ASSIGNEE: SMITHKLINE BEECHAM CORP
PATENT INFO: US 6365389 2 Apr 2002
APPLICATION INFO: US 1998-421491 31 Jul 1998
PRIORITY INFO: US 1999-421491 20 Oct 1999
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-424656 [45]
AB DERWENT ABSTRACT:

NOVELTY - An isolated polypeptide which has H2LAU20 activity, and comprises a sequence (I) which is at least 70% identical to a fully defined 620 amino acid sequence given in the specification, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an isolated polypeptide which is or comprises (I).

WIDER DISCLOSURE - H2LAU20 polynucleotides and **recombinant** polypeptide production methods are disclosed.

BIOTECHNOLOGY - Preparation: The polypeptide is prepared using standard **recombinant** techniques.

ACTIVITY - Antiinflammatory; Antimicrobial; Analgesic; Cytostatic; Cardiant; Neuroprotective; Osteopathic; Antirheumatic; Antipsoriatic; Dermatological; Antiasthmatic; Antidiabetic; Anti-HIV; Immunosuppressive; Antiulcer; Nootropic; Anticonvulsant; Neuroleptic. No biological data given.

MECHANISM OF ACTION - Signal transduction .

USE - The polypeptide is used to treat bone loss including osteoporosis, inflammatory diseases such as adult respiratory disease syndrome, rheumatoid arthritis, osteoarthritis, inflammatory bowel disease, psoriasis, dermatitis, asthma, and allergies, diabetes and associated disorders, infections, particularly HIV, immunodeficiency disorders, septic shock, pain, injury, cancers including testicular cancer, Parkinson's disease, **cardiovascular** disease, ulcers, benign prostatic hypertrophy, psychotic and neurological disorders,, and dyskensias such as Huntington's disease or Gilles de la Tourette's syndrome (disclosed).

ADMINISTRATION - Administration is parenteral e.g. subcutaneous, intramuscular; intravenous or intradermal. Dosage is 0.1-100microg/kg.

EXAMPLE - No suitable example given.(9 pages)

L9 ANSWER 25 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2002-11643 BIOTECHDS
TITLE: New antisense oligonucleotide having nucleoside units which specifically binds mRNA encoding **human protein kinase** C isoform, useful for treating hyperproliferative and inflammatory diseases e.g.

psoriasis, tumor and cancer;
enzyme isoform gene **expression** inhibition for glioblastoma, bladder cancer, mamma cancer, lung cancer, colon cancer diagnosis and therapy

AUTHOR: BENNETT C F; DEAN N M; COOK P D; HOKE G
PATENT ASSIGNEE: ISIS PHARM INC
PATENT INFO: US 6339066 15 Jan 2002
APPLICATION INFO: US 1990-829637 11 Jan 1990
PRIORITY INFO: US 1997-829637 31 Mar 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-215022 [27]

AB DERWENT ABSTRACT:

NOVELTY - An antisense oligonucleotide (I) having up to 50 nucleoside units which specifically binds mRNA encoding a **human protein kinase** C (PKC) isoform selected from PKC-beta I, PKC-beta II, PKC-gamma, PKC-delta, PKC-epsilon, PKC-zeta, and PKC-eta, where (I) inhibits PKC isoform **expression**, and at least about 75% of nucleoside units of (I) is joined together by stereospecific (Sp or Rp) phosphorothioate 3' to 5' linkages, is new.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a pharmaceutical composition (II) comprising (I), preferably two or more of (I).

BIOTECHNOLOGY - Preferred Oligonucleotide: In (I), all of the nucleoside units are joined together by Sp or Rp phosphorothioate 3' to 5' linkages.

ACTIVITY - Cytostatic; antitumor; antipsoriatic; antiinflammatory. Effect of antisense oligonucleotide ISIS 3521 (GTTCTCGCTGGTGAGTTTCA) on the growth of human A549 lung tumor cells in nude mice was tested: The human lung carcinoma cell line 549 was grown in Dulbecco's modified Eagle's Medium. Cells were trypsinized and washed and resuspended in the same medium for introduction into mice. 200 micro liter of A549 cells (5 x 10 to the power of 6 cells) were implanted subcutaneously in the inner thigh of nude mice. ISIS 3521, a phosphorothioate oligonucleotide was administered twice weekly for 4 weeks, beginning one week following tumor cell inoculation. Oligonucleotides were formulated with cationic lipids and given subcutaneously in the vicinity of the tumor. Oligonucleotide dosage was 5 mg/kg with 60 mg/kg cationic lipid. Tumor size was recorded weekly. The results showed that tumor growth was almost completely inhibited in two of the three mice, and reduced compared to a control oligonucleotide ISIS 1082 (a 21-mer phosphorothioate oligonucleotide without significant sequence homology to the protein kinase C (PKC) mRNA target) in a third mouse. This inhibition of tumor growth by ISIS 3521 was statistically significant.

MECHANISM OF ACTION - Inhibitor of **expression** of PKC isoforms (claimed).

USE - (I) is useful for modulating the **expression** of the PKC isoforms and for treating animals suffering from disease amenable to therapeutic intervention by modulating the **expression** of the PKC isoform. (I) is useful as diagnostics, therapeutics, research reagents and kits. (I) is useful for treating hyperproliferative and inflammatory conditions such as psoriasis, tumor, and cancer, for e.g., glioblastoma, bladder cancer, breast cancer, lung cancer, and colon cancer. (I) is useful for detecting the presence of PKC isoform-specific nucleic acids in a cell or tissue sample, to perform autoradiography of tissues to determine the localization, distribution and quantitation of PKC proteins for research, diagnostic or therapeutic purposes, for diagnosing abnormal **proliferative** states in tissues or other samples from patients suspected of having a hyperproliferative disease, and for detection and diagnosis of PKC **expression**.

ADMINISTRATION - (I) is administered by topical (including ophthalmic, vaginal, rectal, intranasal, transdermal), oral, or parenteral (including intravenous, subcutaneous, intraperitoneal,

intramuscular, intrathecal, or intraventricular) route at a dose of 0.01 microgram-100 g/kg body weight.

EXAMPLE - Synthesis of oligonucleotides with racemic intersugar linkages was as follows. Unmodified DNA oligonucleotides were synthesized on an automated DNA synthesizer using standard phosphoramidite chemistry with oxidation by iodine. For racemic phosphorothioate oligonucleotides, the standard oxidation bottle was replaced by a 0.2 M solution of 3H-1,2-benzodithiol-3-one 1,1-dioxide in acetonitrile for the stepwise thiation of the phosphite linkages. The thiation cycle wait step was increased to 68 seconds and was followed by the capping step. 2'-O-methyl phosphorothioate oligonucleotides were synthesized according to the above procedures substituting 2'-O-methyl beta-cyanoethyldiisopropyl phosphoramidites for standard phosphoramidites and increasing the wait cycle after the pulse delivery of tetrazole and base to 360 seconds. Similarly, 2'O-propyl phosphorothioate oligonucleotides were prepared by slight modifications of this procedure. 2'-fluoro phosphorothioate oligonucleotides were synthesized using 5'-dimethoxytrityl-3'-phosphoramidites. The 2'-fluoro oligonucleotides were prepared using phosphoramidite chemistry and a slight modification of the standard DNA synthesis protocol. After cleavage from the controlled pore glass column and deblocking in concentrated ammonium hydroxide at 55 degrees C for 18 hours, the oligonucleotides were purified by precipitation twice out of 0.5 M NaCl with 2.5 volumes ethanol. Purified oligonucleotides were assessed for final purity by analytical high pressure liquid chromatography (HPLC) or analytical gel electrophoresis. The authenticity of the oligonucleotide sequence was assessed by oxidation with iodine in pyridine/water and standard sequencing methods. These phosphorothioate oligonucleotides contained a mixture of all possible combinations of stereospecific (i.e., Rp and Sp) isomers at each phosphorus linkage. (77 pages)

L9 ANSWER 26 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:449841 HCAPLUS
DOCUMENT NUMBER: 137:29829
TITLE: Identification, **cloning**, sequence and therapeutic use of **human protein kinase** BAA77392.1 (KNS1)
INVENTOR(S): Phelps, Christopher Benjamin; Fagan, Richard Joseph
PATENT ASSIGNEE(S): Inpharmatica Limited, UK
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046380	A2	20020613	WO 2001-GB5348	20011204
WO 2002046380	A3	20030206		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002022122	A5	20020618	AU 2002-22122	20011204
PRIORITY APPLN. INFO.:			GB 2000-29549 A	20001204
			WO 2001-GB5348 W	20011204

AB This invention relates to a novel human protein, termed BAA77392.1 (KNS1),

herein identified as a protein kinase and to the use of this proteins and cDNA sequence from the encoding gene in the diagnosis, prevention and treatment of disease.

L9 ANSWER 27 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:107557 HCAPLUS
DOCUMENT NUMBER: 136:162371
TITLE: **Cloning** and characterization of novel **human protein kinase** family members 32374 and 18431 and their therapeutic uses
INVENTOR(S): Meyers, Rachel; Kapeller-Libermann, Rosana; Silos-Santiago, Immaculada
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 141 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002010401	A2	20020207	WO 2001-US23653	20010727
WO 2002010401	A3	20030306		
WO 2002010401	C2	20030912		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2002061573	A1	20020523	US 2001-916790	20010727
EP 1315817	A2	20030604	EP 2001-957286	20010727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004083496	A1	20040429	US 2003-678786	20031003
PRIORITY APPLN. INFO.:			US 2000-221543P	P 20000728
			US 2001-916790	B1 20010727
			WO 2001-US23653	W 20010727

AB The invention provides isolated nucleic acids mols., designated 32374 or 18431 nucleic acid mols., which encode novel protein kinase family members. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 32374 or 18431 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 32374 or 18431 gene has been introduced or disrupted. Their putative function domains are analyzed and their gene **expression** profiles are provided. The invention still further provides isolated 32374 or 18431 proteins, fusion proteins, antigenic peptides and anti-32374 or -18431 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L9 ANSWER 28 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:72144 HCAPLUS
DOCUMENT NUMBER: 136:113840
TITLE: Protein and cDNA sequences of novel **human protein kinase** sequence homologs and uses thereof

INVENTOR(S): Meyers, Rachel; Kapeller-Libermann, Rosana; Rudolph-Owen, Laura; Tsai, Fong-ying
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 159 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002006330	A2	20020124	WO 2001-US22820	20010718
WO 2002006330	A3	20030123		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1335981	A2	20030820	EP 2001-959043	20010718
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 2000-219028P P 20000718
WO 2001-US22820 W 20010718

AB The invention provides protein and cDNA sequences of novel human protein, designated 13237, 18480, 2245 or 16228, which have sequence homol. with protein kinase family members. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 13237,18480,2245 or 16228 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 13237,18480,2245 or 16228 gene has been introduced or disrupted. The invention still further provides isolated 13237,18480,2245 or 16228 proteins, fusion proteins, antigenic peptides and anti-13237,-18480,-2245 or -16228 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L9 ANSWER 29 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:638201 HCAPLUS
DOCUMENT NUMBER: 137:190687
TITLE: Novel molecules of the HKID-1-related protein kinase family and uses thereof
INVENTOR(S): Kapeller-Libermann, Rosana; Rudolph-Owen, Laura A.; MacBeth, Kyle
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 48 pp., Cont.-in-part of U.S. Ser. No. 644,450.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002115120	A1	20020822	US 2001-971791	20011004
US 6143540	A	20001107	US 1999-237543	19990126
US 6383791	B1	20020507	US 2000-644450	20000823
WO 2003029434	A2	20030410	WO 2002-US31948	20021004

WO 2003029434 A3 20031016
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
EP 1432448 A2 20040630 EP 2002-800492 20021004
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK
JP 2005504830 T2 20050217 JP 2003-532652 20021004
PRIORITY APPLN. INFO.: US 1999-237543 A3 19990126
US 2000-644450 A2 20000823
US 2001-971791 A 20011004
WO 2002-US31948 W 20021004

AB Novel HKID-1 polypeptides, proteins, and nucleic acid mols. are disclosed. HKID-1 is a serine/threonine protein kinase which is the ortholog of rat KID-1. In addition to isolated, full-length HKID-1 proteins, the invention further provides isolated HKID-1 fusion proteins, antigenic peptides and anti-HKID-1 antibodies. The invention also provides HKID-1 nucleic acid mols., **recombinant expression** vectors containing a nucleic acid mol. of the invention, host cells into which the **expression** vectors have been introduced and non-human transgenic animals in which an HKID-1 gene has been introduced or disrupted. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L9 ANSWER 30 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:290717 HCAPLUS
DOCUMENT NUMBER: 136:320386
TITLE: Sequences of **human protein kinase** p54S6K and p85S6K, and methods of regulation and detection of them
INVENTOR(S): Blenis, John; Lee-Fruman, Kay K.; Kuo, Calvin J.
PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA
SOURCE: U.S., 30 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 6372467	B1	20020416	US 1999-430564		19991029
PRIORITY APPLN. INFO.:			US 1998-106141P	P	19981029

AB The present invention discloses sequences of novel **human protein kinases**, p54S6K and p85S6K, DNA sequences encoding them, methods of detecting them and activities of the kinases. Specifically, the invention discloses methods of characterization of the protein, activation and regulation of their enzymic activities. Also disclosed are methods for identifying compds. that modulate, or which are modulated by, p54S6K or p85S6K . In addition, the invention discloses methods for diagnosing or treating a cellular **proliferative** disease.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 31 OF 69 MEDLINE on STN DUPLICATE 3
ACCESSION NUMBER: 2002484132 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12269829
TITLE: Modulation of the **human protein kinase** C alpha gene promoter by activator protein-2.
COMMENT: Erratum in: Biochemistry 2002 Oct 29;41(43):13116
AUTHOR: Clark Joannah Hackenbruck; Haridasse Vedanandam; Glazer Robert I
CORPORATE SOURCE: Department of Pharmacology, Lombardi Cancer Center, Georgetown University School of Medicine, 3970 Reservoir Road NW, Washington, D.C. 20007, USA.
CONTRACT NUMBER: 2P50 CA 58185-04 (NCI)
R01 NS 34431 (NINDS)
SOURCE: Biochemistry, (2002 Oct 1) 41 (39) 11847-56.
Journal code: 0370623. ISSN: 0006-2960.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF395829
ENTRY MONTH: 200211
ENTRY DATE: Entered STN: 20020925
Last Updated on STN: 20021217
Entered Medline: 20021119

AB Protein kinase Calpha (PKCalpha) is a phospholipid-dependent protein-serine/threonine kinase that plays a major role in intracellular signaling pathways associated with transformation and tumor progression. Glioblastoma multiforme (GBM) and GBM cell lines exhibit increased levels of PKCalpha compared to normal brain tissue that relates to their **proliferative** and invasive potential. To investigate the transcriptional regulation of PKCalpha, the 5'-flanking sequence of the human PKCalpha gene was **cloned** and its promoter activity assessed in U-87 GBM cells. This sequence contained a TATA-less promoter region and a single transcription start site within an initiator sequence. Basal promoter activity was restricted to a region spanning -227 to +77 relative to the transcription start site. DNase I footprinting revealed multiple activator protein-2 (AP-2) binding sites and one Sp1 binding site within this region, and point mutations of two AP-2 elements resulted in a loss of DNA binding and transcriptional activation. Overexpression of Sp1 in either U-87 or insect cells increased transcription from the -227/+77 promoter region, whereas overexpression of AP-2 increased transcription only in insect cells. Cis activation of the promoter in U-87 cells was increased by phorbol esters but not by cyclic AMP or phosphatidylinositol 3-kinase inhibitors. These results provide evidence that cis activation of the basal promoter of the human PKCalpha gene occurs through an AP-2-dependent, phorbol ester-responsive pathway, which suggests an autoregulatory manner of transcription in GBM.

L9 ANSWER 32 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:873511 HCAPLUS
DOCUMENT NUMBER: 138:301117
TITLE: Role of protein kinase C α in primary human osteoblast proliferation
AUTHOR(S): Lampasso, J. D.; Marzec, N.; Margarone, J., III; Dziak, R.
CORPORATE SOURCE: Department of Oral Biology, University at Buffalo, Buffalo, NY, USA
SOURCE: Journal of Bone and Mineral Research (2002), 17(11), 1968-1976
CODEN: JBMREJ; ISSN: 0884-0431
PUBLISHER: American Society for Bone and Mineral Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Protein kinase C (PKC) isoforms have been shown to have specific

expression profiles and individual isoforms are believed to play distinct roles in the cells in which they are found. The goal here was to determine which specific isoform(s) is involved in proliferation of primary human osteoblasts. In primary human osteoblasts, 10 μM of acute sphingosine-1-phosphate (S1P) treatment induced an increase in proliferation that correlated with an increase in PKCα and PKCι **expression**. To further delineate which isoforms are involved in osteoblastic cell proliferation, the effect of low vs. high serum culture conditions on PKC isoform **expression** was determined Likewise, the effect of antisense oligodeoxynucleotides (ODNs) to specific PKC isoforms on proliferation and MAPK activation was studied. The effect of S1P on intracellular translocation of activated PKC isoforms was also evaluated. The results indicated that in primary human osteoblasts, PKCα was not **expressed** under conditions of low **proliferative** rate while PKCδ and PKCι **expression** was not affected. The specific inhibition of PKCα by antisense ODNs resulted in inhibition of MAPK activity leading to a significant decrease in proliferation. S1P up-regulated antisense ODN inhibited PKCα **expression** and MAPK activity and led to an increase in proliferation. Subsequent expts. using platelet-derived growth factor (PDGF) as an addnl. mitogen generated similar data. PDGF stimulation resulted in a significant increase in proliferation that correlated with an up-regulation of inhibited PKCα **expression** in antisense ODN-treated cells. Immunofluorescence methods showed that mitogenic stimulation of PKCα resulted in nuclear translocation. Our findings present original data that PKCα is the isoform specifically involved in the proliferation of primary human osteoblasts.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 33 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:648114 HCAPLUS
DOCUMENT NUMBER: 137:367443
TITLE: Higher levels of melanin and inhibition of cdk2 activity in primary human melanoma cells WM115 overexpressing nPKC.vdelta.
AUTHOR(S): La Porta, C. A. M.; Porro, D.; Comolli, R.
CORPORATE SOURCE: Department of General Physiology and Biochemistry, Section of General Pathology, University of Milano, Milan, 20133, Italy
SOURCE: Melanoma Research (2002), 12(4), 297-307
CODEN: MREEEH; ISSN: 0960-8931
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Many studies have attempted to define the state of differentiation of melanoma cells and to correlate it with other critical parameters of malignancy such as the tumorigenic and metastatic nature of the cells. In the present paper we focused on the possible relationships between the novel protein kinase C isoform nPKC.vdelta., melanin synthesis and **proliferative** capacity in a primary human melanoma cell line WM115. Cells were transfected to produce overexpression of this isoform and the effects on melanin synthesis, cyclin-E dependent kinase (cdk2) activity and cyclin E **expression** were studied. It was shown that translocation of nPKC.vdelta. into the nucleus affects melanin synthesis and inhibits cdk2 activity. As a compensatory effect, the level of cyclin E increases. In view of these results we suggest a model for the role of nPKC.vdelta. in melanoma cells that may offer a new therapeutic perspective.

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 34 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on

STN
ACCESSION NUMBER: 2003:15558 BIOSIS
DOCUMENT NUMBER: PREV200300015558
TITLE: Isolation of differentially **expressed** genes in human heart tissues.
AUTHOR(S): Sun, Guifeng [Reprint Author]; Chan, Siu Yuen; Yuan, Yihua; Chan, Kin Wang; Qiu, Guangrong; Sun, Kailai; Leung, Maurice Ping
CORPORATE SOURCE: Department of Physiology and Biophysics, College of Medicine, University of California, Irvine, Room 288, Joan Irvine Smith Hall, Irvine, CA, 92697, USA guifengs@uci.edu
SOURCE: Biochimica et Biophysica Acta, (12 December 2002) Vol. 1588, No. 3, pp. 241-246. print.
ISSN: 0006-3002 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 25 Dec 2002
Last Updated on STN: 25 Dec 2002

AB We applied RNA arbitrarily primed-PCR (RAP-PCR) to screen the genes differentially **expressed** between common congenital heart defects (CHD) (atrial septal defect, ventricular septal defect, Tetrology of Fallot (TOF)) and normal human heart samples. Three of these differentially amplified fragments matched cDNA sequences coding for proteins of unknown function in humans: hCALO (human homologue of calossin), NP79 (coding for a nuclear protein of 79KD) and SUN2 (Sad-1 unc-84 domain protein 2). The other four fragments were from known human genes: apolipoprotein J, titin, dystrophin and protein kinase C-delta. Northern blot analysis confirmed that all of these genes are **expressed** in the human heart. The results of RAP-PCR were reconfirmed by quantitative RT-PCR in TOF and control heart samples. Both techniques showed the levels of **expression** of hCALO, NP79 and SUN2 to be comparable in TOF and control samples and the level of **expression** of dystrophin and titin, both coding for cytoskeletal proteins, to be significantly upregulated in TOF samples. In summary, we have shown that the RAP-PCR technique is useful in the identification of differentially **expressed** gene from biopsy samples of human CHD tissues. In this manner, we have identified three novel genes implicated in the normal function of the human heart and two known genes upregulated in TOF samples.

L9 ANSWER 35 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 4
ACCESSION NUMBER: 2002-02388 BIOTECHDS
TITLE: New **human protein kinase** polypeptide, 3714, 16742, 23546 and 13887, useful in diagnosis of cancer or cellular proliferation or differentiation disorders and to screen for polypeptide modulators useful to treat such conditions; and also useful for gene therapy and drug screening
AUTHOR: Meyers R
PATENT ASSIGNEE: Millennium-Pharm.
LOCATION: Cambridge, MA, USA.
PATENT INFO: WO 2001073050 4 Oct 2001
APPLICATION INFO: WO 2001-US9483 23 Mar 2001
PRIORITY INFO: US 2000-191846 24 Mar 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-611632 [70]

AB A 3714, 16742, 23546 or 13887 nucleic acid (NA) molecule (I) comprising defined sequence (S5)-(S12) of 3714, 2352, 16742, 1026, 22546, 3735, 13887 and 1260 bp, is new. Also claimed are: a host cell (III); 3714, 16742, 23546, or 13887 protein sequence (II); an antibody which

selectively binds to (II); producing (II); detecting (I) or (II) in a sample; a kit; identifying a compound which binds to a protein or modulates the activity of (II); modulating (II) activity; identifying (M1) and (M2) a NA molecule associated with cancer; identifying (M3) a protein associated with tumors; identifying a subject (at risk of) having tumors; identifying a compound capable of treating tumors; treating (M4) a subject having cancer; evaluating efficiency of treatment of tumors; and diagnosing tumors. Also disclosed are non-human transgenic animals. 3714, 16742, 23546, or 13887 are useful in treating and diagnosing tumors (particularly in the colon), bone related disorders, inflammatory disorders, autoimmune diseases, **cardiovascular** disorders, and liver diseases and useful for screening methods for identifying subjects (at risk of) having tumors, and drug screening. (169pp)

L9 ANSWER 36 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 5
ACCESSION NUMBER: 2002-00501 BIOTECHDS
TITLE: Novel **human protein-kinases** and protein-kinase-like enzymes for treating and diagnosing various kinase-related diseases and conditions; vector-mediated gene transfer, **expression** in host cell, monoclonal antibody, hybridoma and DNA probe for **recombinant** protein production, drug screening and disease therapy and diagnosis
AUTHOR: Plowman G D; Whyte D; Manning G; Sudarsanam S; Martinez R
PATENT ASSIGNEE: Sugen
LOCATION: South San Francisco, CA, USA.
PATENT INFO: WO 2001066594 13 Sep 2001
APPLICATION INFO: WO 2001-US6838 2 Mar 2001
PRIORITY INFO: US 2000-247013 13 Nov 2000; US 2000-187150 6 Mar 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-536777 [59]
AB A DNA (I, having defined DNA sequence given in the specification) capable of encoding **human protein-kinases** (EC-2.7.1.37) or protein-kinase-like proteins (II, having defined protein sequence given in the specification) are claimed. Also claimed are: a **recombinant** cell containing (I) encoding a protein-kinase having the sequence of (II); a hybridoma which produces a monoclonal antibody which specifically binds to (II); a kit containing an antibody which binds to (II); identifying a substance that modulates the activity of a protein-kinase; treating a disease or disorder by administering to a patient a substance that modulates the activity of a protein-kinase having the protein sequence of (II); and detection of a protein-kinase in a sample as a diagnostic tool for a disease using a DNA probe. (I) is capable of encoding **human protein-kinases** or protein-kinase-like proteins is used for detection of DNA encoding a protein-kinase in a sample. The protein-kinases are useful for diagnosis and treatment of a disease selected from cancer, immune disease, **cardiovascular** disease, neurological disease, virus or bacterium infection and organ transplant rejection. (201pp)

L9 ANSWER 37 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 2002:55545 BIOSIS
DOCUMENT NUMBER: PREV200200055545
TITLE: **Human protein kinases** hYAK3-2.
AUTHOR(S): Lord, Kenneth A. [Inventor, Reprint author]; Dillon, Susan B. [Inventor]; Creasy, Caretha [Inventor]
CORPORATE SOURCE: Collegeville, PA, USA
ASSIGNEE: SmithKline Beecham Corporation
PATENT INFORMATION: US 6323318 November 27, 2001

SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 27, 2001) Vol. 1252, No. 4. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Jan 2002
Last Updated on STN: 25 Feb 2002

AB hYAK3-2 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK3-2 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers including testicular cancer; anorexia; bulimia; neutropenia; cytopenia; anemias, including anemias due to renal insufficiency or to chronic disease, such as autoimmunity or cancer, and drug-induced anemias; polycythemia; myelosuppression; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome, among others, and diagnostic assays for such conditions.

L9 ANSWER 38 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2002-06177 BIOTECHDS
TITLE: Novel **human protein kinase** protein and polynucleotides used in the diagnosis and treatment of disorders e.g. osteoporosis, osteodystrophy, osteomalacia, rickets, obesity and to identify modulators of therapeutic use;
involving vector-mediated gene transfer for **expression** in host cell, for use in diagnosis, therapy, gene therapy and drug screening
AUTHOR: MEYERS R A
PATENT ASSIGNEE: MILLENNIUM PHARM INC
PATENT INFO: WO 2001096544 20 Dec 2001
APPLICATION INFO: WO 2000-US19269 15 Jun 2000
PRIORITY INFO: US 2000-212078 15 Jun 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2002-130729 [17]

AB DERWENT ABSTRACT:
NOVELTY - An isolated **human protein kinase**, 53070 polypeptide (I), is new.
DETAILED DESCRIPTION - An isolated **human protein kinase**, 53070 polypeptide (I), comprising a fragment of 15 contiguous aa of a sequence (S1) of 261 (residue 12-272 of a sequence of 272 aa as given in the specification) aa given in specification, a naturally occurring allelic variant of (S1) or aa sequence encoded by a nucleotide sequence that hybridizes to a 53070 nucleic acid sequence (S2) of defined base pairs as given in the specification, or a polypeptide encoded by nucleic acid molecule comprising a sequence 80% identical to (S2), is new. INDEPENDENT CLAIMS are also included for the following: (1) an isolated nucleic acid molecule (II) encoding (I) comprising: (a) nucleotide sequence (NS) which is 80% identical to (S2); (b) a fragment of 280 nucleotides of (S2); (c) NS encoding the polypeptide comprising

(S1); (d) NS encoding a fragment of 15 contiguous aa of (S1); or (e) NS encoding a naturally occurring allelic variant of (I), where the NS hybridizes to (S2) or its complement under stringent conditions; (2) a host cell (non-mammalian host cell) (III) containing (II); (3) an antibody (Ab) specific to (I); (4) preparation of (I); (5) detecting (M1) (I)/(II) in a sample, by contacting the sample with a compound which selectively hybridizes to (II) (nucleic acid probe or primer) or binds to (I); and determining whether the compound hybridizes to the nucleic acid or binds to polypeptide in the sample; (6) a kit comprising a compound which selectively hybridizes to (II) or binds to (I), and instructions for use; (7) modulating (M2) the activity of (I), by contacting (I) or cell **expressing** (I) with a compound which binds to (I) to modulate the activity of (I); (8) modulating (M3) the phosphorylation of 53070 substrate in a cell **expressing** (I) comprising contacting the cell with a compound that modulates activity or **expression** of (I) or (II); (9) treating or preventing (M4) a subject having a disorder characterized by abnormal phosphorylation of 53070 substrate in cell **expressing** (I) comprising administering a compound modulating the activity of (I) or (II) such that the abnormal phosphorylation of the substrate is reduced or inhibited; and (10) detecting (M5) in a subject, a disorder characterized abnormal levels of (I) comprising a tissue sample from the subject and determining amount of (I) in the sample where change in amount of (I) indicates the presence of a disorder.

WIDER DISCLOSURE - Also disclosed are: (1) a nucleic acid construct comprising (II); (2) an isolated nucleic acid molecule which is antisense to (II); (3) a chimeric or fusion protein comprising (I) linked to non-53070 polypeptide; (4) an antigen binding fragment specific to (I); (5) a compound which modulates the activity or **expression** of (I); (6) a method to evaluate the efficacy of a treatment of a disorder e.g. **proliferative** disorder; (7) a method too evaluate the efficacy of a therapeutic or prophylactic agent; (8) a two-dimensional array having several addresses where each address being positionally distinguishable from each other; (9) variants of (I)/(II); (10) a **recombinant expression** vectors comprising (II); and (11) nonhuman transgenic animal comprising (II).

BIOTECHNOLOGY - Preparation: (I) is prepared by culturing (III) under conditions in which (II) is **expressed** (claimed). Preferred Polynucleotide: (II) further comprises vector nucleic acid sequences and encodes a heterologous polypeptide. Preferred Polypeptide: (I) further comprises a heterologous amino acid sequence. Preferred Method: In M3, a compound is a peptide, phosphopeptide, a small organic molecule or an antibody and a substrate is phosphorylated on one or more serine and/or threonine residues.

ACTIVITY - Nootropic; Neuroprotective; Anticonvulsant; Neuroleptic; Antimigraine; Anorectic; Vasotropic; Cardiant; Cytostatic; Hepatotropic; Antidiabetic; Antiinfertility; Immunostimulant; Osteopathic; immunosuppressive; Anabolic; Nephrotropic. No supporting data provided.

MECHANISM OF ACTION - Gene therapy; Modulator of (I) or (II); antisense therapy. No supporting data provided.

USE - (I) is useful for identifying a compound which binds to (I) or modulates the activity of (I), by contacting (I) or a cell **expressing** (I) with a test compound, and determining whether (I) binds to the compound or determining the effect of the compound and the activity of (I) . (M1) is useful for detecting (I)/(II) in a sample; (M2) is useful for modulating the activity of (I); (M3) is useful for modulating the phosphorylation of 53070 substrate in a cell **expressing** (I); (M4) is useful for treating or preventing a subject having a disorder characterized by abnormal phosphorylation of 53070 substrate in cell **expressing** (I); (M5) is useful detecting in a subject, a disorder characterized by abnormal levels of (I) (all claimed). (I) and/or (II) are useful as modulating agents in treating and diagnosing disorders associated with bone metabolism, immune

disorders, **cardiovascular** disorders, liver disorders, viral diseases, pain or metabolic disorders, reproductive disorders such as oristatic or testicular disorders, where the disorders include bone disorders such as osteoporosis, osteodystrophy, osteomalacia, rickets, osteitis fibrosa cystica, renal osteodystrophy, osteosclerosis, anti-convulsant treatment, osteopenia, fibrogenesis-imperfecta ossium, secondary hyperparathyrodism, hypoparathyroidism, cirrhosis, obstructive jaundice, drug induced metabolism, medullary carcinoma, chronic renal disease, sarcoidosis, glucocorticoid antagonism, malabsorption syndrome, steatorrhea, tropical sprue, idiopathic hypercalcemia and milk fever; portal hypertension or hepatic fibrosis, Gaucher's disease, hemochromatosis, copper storage disease, hepatocellular cancer, diseases of metabolic imbalance include obesity, anorexia nervosa, cachexia, lipid disorders, and diabetes; pain disorders include tissue injury e.g. inflammation, infection and ischemia, pain associated with musculoskeletal disorders e.g. joint pain, tooth pain, headaches. (I), (II), homologs of (I) and (IV) are useful for screening assays; predictive medicine (e.g., diagnostic assays, prognostic assays, monitoring clinical trials, and pharmacogenetics) and treatment (e.g., therapeutic and prophylactic). (II) is useful for **expressing** a 53070 protein (e.g., via a **recombinant expression** vector in a host cell in a gene therapy applications), detecting a 53070 mRNA (e.g., in a biological sample) or a genetic alteration in a 53070 gene, and modulating mRNA (e.g., in a biological sample) or a genetic alteration in a 53070 gene, and to modulate 53070 activity. (I) is used to treat disorders characterized by insufficient or excessive production of a 53070 substrate or production of 53070 inhibitors. (I) can also be used to screen for naturally occurring 53070 substrates, to screen for drugs or compounds which modulate 53070 activity, as well as to treat disorders characterized by insufficient or excessive production of 53070 protein or production of 53070 protein forks which have decreased, aberrant or unwanted activity compared to 53070 wild type protein (e.g. a liver or muscular disorder). Moreover, the anti-53070 antibodies can be used to detect and isolate 53070 proteins, regulate the bioavailability of 53070 proteins, and modulate 53070 activities. Fragments of (II) are also useful to synthesize antisense molecules of desired length and sequences. (II) is also useful to detect mutations in genes and gene **expression** products such as mRNA, as antisense constructs to control gene **expression** and for chromosome identification. (III) is useful for producing proteins and polypeptides, for conducting cell-based assays involving the protein or fragments and to produce non-human transgenic animals which are useful for studying the function of a receptor protein and identifying and evaluating modulators of the protein activity.

ADMINISTRATION - Pharmaceutical composition comprising (I) is administered by parenteral, e.g. intravenous, intradermal, subcutaneous, oral (inhalation), transdermal (topical), transmucosal or rectal route. Antisense nucleic acid molecule of (II) is administered by direct injection at a tissue site or generated in situ such that they hybridize with or bind to cellular mRNA and/or genomic DNA encoding (I). Dosage is 0.001-30 (preferably 0.1-20) mg/kg.

EXAMPLE - No relevant example is given. (112 pages)

L9 ANSWER 39 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:868685 HCAPLUS
DOCUMENT NUMBER: 136:15967
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homolog 13305 and uses thereof
INVENTOR(S): Curtis, Rory A. J.; Weich, Nadine
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001090365	A2	20011129	WO 2001-US16197	20010517
WO 2001090365	A3	20030123		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1294894	A2	20030326	EP 2001-937568	20010517

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:	US 2000-205301P	P	20000519
	WO 2001-US16197	W	20010517

AB The invention provides isolated nucleic acids mols., designated 13305 nucleic acid mols., which encode novel protein kinases. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 13305 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which 13305 gene has been introduced or disrupted. The invention still further provides isolated 13305 proteins, fusion proteins, antigenic peptides and anti-13305 antibodies. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L9 ANSWER 40 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:798438 HCAPLUS
DOCUMENT NUMBER: 135:340275
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homolog 14911 and uses thereof
INVENTOR(S): Meyers, Rachel; Hunter, John Joseph
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 115 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081589	A2	20011101	WO 2001-US13785	20010425
WO 2001081589	A3	20030130		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1297151	A2	20030402	EP 2001-930916	20010425

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 2000-199391P P 20000425
US 2000-593927 A 20000615
WO 2001-US13785 W 20010425

AB The invention provides isolated nucleic acids mols., designated 14911 nucleic acid mols., which encode novel protein kinases. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 14911 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which 14911 gene has been introduced or disrupted. The invention still further provides isolated 14911 proteins, fusion proteins, antigenic peptides and anti-14911 antibodies. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L9 ANSWER 41 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:798437 HCAPLUS
DOCUMENT NUMBER: 135:340274
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homolog 2246 and uses thereof
INVENTOR(S): Meyers, Rachel
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 111 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 12
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081588	A2	20011101	WO 2001-US13784	20010425
WO 2001081588	A3	20020404		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002155570	A1	20021024	US 2001-842582	20010425
EP 1290183	A2	20030312	EP 2001-930915	20010425

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.: US 2000-199391P P 20000425
WO 2001-US13784 W 20010425

AB The invention provides isolated nucleic acids mols., designated 2246 nucleic acid mols., which encode novel protein kinases. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 2246 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which 2246 gene has been introduced or disrupted. The invention still further provides isolated 2246 proteins, fusion proteins, antigenic peptides and anti-2246 antibodies. Diagnostic, screening and therapeutic methods utilizing compns. of the invention are also provided.

L9 ANSWER 42 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:798433 HCAPLUS

DOCUMENT NUMBER: 135:340271
TITLE: Protein and cDNA sequences of a novel ubiquitin conjugating enzyme sequence homolog 27960 and uses thereof
INVENTOR(S): Meyers, Rachel A.; Tsai, Fong-Ying
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 117 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 14
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081584	A2	20011101	WO 2001-US40607	20010425
WO 2001081584	A3	20020404		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2003224376	A1	20031204	US 2002-184648	20020627

PRIORITY APPLN. INFO.:

US 2000-199500P	P	20000425
US 2000-187456P	P	20000307
US 2000-191865P	P	20000324
US 2000-191964P	P	20000324
US 2000-192092P	P	20000324
US 2000-200604P	P	20000428
US 2000-205408P	P	20000519
US 2000-211730P	P	20000615
US 2000-212077P	P	20000615
US 2000-212079P	P	20000615
US 2000-235044P	P	20000925
US 2000-238849P	P	20001006
US 2001-267494P	P	20010208
US 2001-801220	A2	20010307
WO 2001-US7269	A	20010307
US 2001-815028	A2	20010322
WO 2001-US9358	A	20010322
US 2001-816714	B2	20010323
WO 2001-US9468	A	20010323
US 2001-817910	A2	20010326
WO 2001-US9633	A	20010326
US 2001-842528	B2	20010425
WO 2001-US40607	A	20010425
US 2001-844948	A2	20010427
WO 2001-US13805	A	20010427
US 2001-861164	B2	20010518
WO 2001-US16292	A	20010518
US 2001-882836	A2	20010615
US 2001-882872	B2	20010615
US 2001-883060	A2	20010615
WO 2001-US19138	A	20010615
WO 2001-US19153	A	20010615
WO 2001-US19543	A	20010615
US 2001-962678	A2	20010925
WO 2001-US29963	A	20010925
US 2001-973457	A2	20011009

US 2002-72285 A2 20020208
WO 2002-US3736 A 20020208

AB The invention provides isolated nucleic acids mols., designated 27960 nucleic acid mols., which encode novel ubiquitin-conjugating enzyme family members. The mRNA distribution profiles in various animal tissues and tumors are provided. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 27960 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 27960 gene has been introduced or disrupted. The invention still further provides isolated 27960 proteins, fusion proteins, antigenic peptides and anti-27960 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L9 ANSWER 43 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:781119 HCAPLUS
DOCUMENT NUMBER: 135:340227
TITLE: Protein and cDNA sequences of a novel **human protein kinase** sequence homologs and uses thereof
INVENTOR(S): Kapeller-Libermann, Rosana
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 98 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001079488	A2	20011025	WO 2001-US12188	20010413
WO 2001079488	A3	20030130		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002090701	A1	20020711	US 2001-834496	20010413

PRIORITY APPLN. INFO.: US 2000-196910P P 20000413

AB The invention provides protein and cDNA sequences of a novel human protein, designated 14257, which has sequence homol. with protein kinases. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 14257 nucleic acid mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 14257 gene has been introduced or disrupted. The invention still further provides isolated 14257 proteins, fusion proteins, antigenic peptides and anti-14257 antibodies. Diagnostic, screening, and therapeutic methods utilizing compns. of the invention are also provided.

L9 ANSWER 44 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:763200 HCAPLUS
DOCUMENT NUMBER: 135:328144
TITLE: Novel human protein and cDNA sequences of kinases and its therapeutic use
INVENTOR(S): Plowman, Gregory; Whyte, David; Manning, Gerard; Sudarsanam, Sucha; Martinez, Ricardo; Caenepeel, Sean
PATENT ASSIGNEE(S): Sugen, Inc., USA

SOURCE: PCT Int. Appl., 167 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001077338	A2	20011018	WO 2001-US11675	20010410
WO 2001077338	A3	20020829		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CO, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2404971	AA	20011018	CA 2001-2404971	20010410
EP 1278859	A2	20030129	EP 2001-924901	20010410
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003530110	T2	20031014	JP 2001-575192	20010410
US 2003224378	A1	20031204	US 2003-240315	20030225
PRIORITY APPLN. INFO.:			US 2000-195953P P	20000410
			US 2000-201015P P	20000501
			US 2000-213805P P	20000622
			WO 2001-US11675 W	20010410

AB The present invention relates to kinase polypeptides, nucleotide sequences encoding the kinase polypeptides, as well as various products and methods useful for the diagnosis and treatment of various kinase-related diseases and conditions. Through the use of a bioinformatics strategy, mammalian members of the of PTK's and STK's have been identified and their protein structure predicted.

L9 ANSWER 45 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:661616 HCAPLUS
DOCUMENT NUMBER: 135:207454
TITLE: Protein and cDNA sequences of novel **human protein kinase** sequence homologs and uses thereof
INVENTOR(S): Olandt, Peter J.; Kapeller-Libermann, Rosana; Meyers, Rachael A.
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 144 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 57
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001064905	A2	20010907	WO 2001-US6525	20010228
WO 2001064905	A3	20020808		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1259620 A2 20021127 EP 2001-913192 20010228

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

US 2003180930 A1 20030925 US 2002-170789 20020613

WO 2003027308 A2 20030403 WO 2002-US30054 20020923

WO 2003027308 A3 20050331

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2000-186061P	P	20000229
US 2000-187420P	P	20000307
US 2000-187454P	P	20000307
US 2000-197508P	P	20000418
US 2000-205508P	P	20000519
US 2000-212078P	P	20000615
US 2000-226740P	P	20000821
US 2000-235023P	P	20000925
US 2000-246561P	P	20001107
US 2001-797039	A2	20010228
WO 2001-US6525	W	20010228
WO 2001-US7074	A	20010305
WO 2001-US7138	A	20010305
US 2001-801267	A2	20010306
US 2001-801275	A2	20010306
US 2001-829671	A2	20010410
WO 2001-US40483	A	20010411
US 2001-861801	A2	20010521
WO 2001-US16549	A	20010521
US 2001-882166	A2	20010615
WO 2001-US19269	A	20010615
US 2001-934406	A2	20010821
WO 2001-US26052	A	20010821
US 2001-961656	A	20010924
US 2001-961721	A2	20010924
WO 2001-US29904	A	20010924
US 2001-45367	A2	20011107

AB The invention provides protein and cDNA sequences of novel **human protein kinase** sequence homologs, designated 2504, 15977, or 14760, which are novel members of protein kinase family. The invention also provides antisense nucleic acid mols., **recombinant expression** vectors containing 2504, 15977, or 14760 nucleic mols., host cells into which the **expression** vectors have been introduced, and nonhuman transgenic animals in which a 2504, 15977, or 14760 gene has been introduced or disrupted. The invention still further provides isolated 2504, 15977, or 14760 proteins, fusion proteins, antigenic peptides and anti-2504, 15977, or 14760 antibodies. Diagnostic methods utilizing compns. of the invention are also provided.

L9 ANSWER 46 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:565235 HCAPLUS

DOCUMENT NUMBER: 135:164088

TITLE: Novel **human protein kinases** and protein kinase-like enzymes and

their diagnostic and therapeutic use
INVENTOR(S): Plowman, Gregory; Whyte, David; Manning, Gerard; Sudarsanam, Sucha; Martinez, Ricardo
PATENT ASSIGNEE(S): Sugen, Inc., USA
SOURCE: PCT Int. Appl., 218 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001055356	A2	20010802	WO 2001-US2337		20010125
WO 2001055356	A3	20020328			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
CA 2398430	AA	20010802	CA 2001-2398430		20010125
AU 2001034544	A5	20010807	AU 2001-34544		20010125
EP 1254214	A2	20021106	EP 2001-906658		20010125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2003520602	T2	20030708	JP 2001-554387		20010125
US 2004048310	A1	20040311	US 2003-182243		20030116
PRIORITY APPLN. INFO.:			US 2000-178078P	P	20000125
			US 2000-179364P	P	20000131
			US 2000-183173P	P	20000217
			US 2000-190162P	P	20000317
			US 2000-193404P	P	20000329
			US 2000-247013P	P	20001113
			WO 2001-US2337	W	20010125

AB The present invention relates to kinase polypeptides, nucleotides sequences encoding the kinase polypeptides, as well as various products and methods useful for the diagnosis and treatment of various kinase-related diseases and conditions. Through the use of a bioinformatics strategy, mammalian members of the of tyrosine kinases and serine/threonine kinases have been identified and their protein structure predicted. **Expression** anal. of the kinases is presented. Chromosomal localization of protein kinase genes is disclosed and single nucleotide polymorphisms are studied. Assays for the protein kinases are developed.

L9 ANSWER 47 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:397023 HCAPLUS
DOCUMENT NUMBER: 135:30738
TITLE: Novel **human protein kinases** and protein kinase-like enzymes and their cDNA sequences
INVENTOR(S): Plowman, Gregory D.; Whyte, David; Manning, Gerard; Sudarsanam, Sucha; Martinez, Ricardo; Flanagan, Peter; Clary, Douglas
PATENT ASSIGNEE(S): Sugen, Inc., USA
SOURCE: PCT Int. Appl., 433 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001038503	A2	20010531	WO 2000-US32085	20001122
WO 2001038503	A3	20020131		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2394803	AA	20010531	CA 2000-2394803	20001122
EP 1240194	A2	20020918	EP 2000-982200	20001122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003514583	T2	20030422	JP 2001-540254	20001122
PRIORITY APPLN. INFO.:			US 1999-167482P	A1 19991124
			WO 2000-US32085	W 20001122

AB The present invention relates to kinase polypeptides, nucleotide sequences encoding the kinase polypeptides, as well as various products and methods useful for the diagnosis and treatment of various kinase-related diseases and conditions. Through the use of a bioinformatics strategy, 57 human members of the protein tyrosine kinases's and serine/threonine kinase's have been identified and their protein structure predicted. Also provided are chromosomal localization, single nucleotide polymorphisms, repeat and catalytic and other domains, and tissue **expression** patterns.
The kinase and/or kinase-like proteins display activity in assays on FLK-1 receptor, IGF-I receptor, HER2, EGF receptor, platelet-derived growth factor receptor, Met tyrosine kinase receptor, Src protein kinase, Lck, c-kit, Raf, and CDK2/Cyclin A.

L9 ANSWER 48 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:294219 HCAPLUS
Correction of: 2001:168136

DOCUMENT NUMBER: 134:337614
Correction of: 134:233606

TITLE: Nucleic acid-based ribozyme and DNAzyme modulators of gene expression

INVENTOR(S): McSwiggen, James; Usman, Nassim; Blatt, Lawrence; Beigelman, Leonid; Burgin, Alex; Karpeisky, Alexander; Matulic-adamic, Jasenka; Sweedler, David; Draper, Kenneth; Chowrira, Bharat; Stinchcomb, Dan; Beaudry, Amber; Zinnen, Shawn; Lugwig, Janos; Sproat, Brian S.

PATENT ASSIGNEE(S): Ribozyme Pharmaceuticals, Inc., USA

SOURCE: PCT Int. Appl., 717 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001016312 A2		20010308	WO 2000-US23998	20000830
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ				
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG				

PRIORITY APPLN. INFO.:

US 1999-PV151713	19990831
US 1999-406643	19990927
US 1999-PV156467	19990927
US 1999-PV156236	19990927
US 1999-436430	19991108
US 1999-PV169100	19991206
US 1999-PV173612	19991229
US 1999-474432	19991229
US 1999-476387	19991230
US 2000-498824	20000204
US 2000-531025	20000320
US 2000-PV197769	20000414
US 2000-578223	20000523

AB Novel nucleic acid mols. useful as inhibitors of gene expression, compns., and methods for their use are provided. The invention features novel nucleic acid-based techniques (e.g., enzymic nucleic acid mols. (ribozymes), antisense nucleic acids, 2-5A antisense chimeras, triplex DNA, and antisense nucleic acids containing RNA-cleaving chemical groups) and their use to modulate the expression of mol. targets impacting the development and progression of cancers, diabetes, obesity, Alzheimer's disease diseases, age-related diseases, and/or hepatitis B infections and related conditions. Catalytic nucleic acids were designed for site-specific cleavage of human mRNA targets encoding protein tyrosine phosphatase 1b, methionine aminopeptidase, β-secretase, presenilin-1, epidermal growth factor receptor-2 (HER2/c-erb2/neu), phospholamban, telomerase, and hepatitis B virus genes. Methods for chemical synthesis of modified nucleoside triphosphates (NTPs) and RNA polymerase-catalyzed incorporation of modified NTPs into catalytic oligonucleotides are also provided. [This abstract record os one of 6 records for this document necessitated by the large number of index entries required to fully index the document and publication system constraints.].

L9 ANSWER 49 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:296899 BIOSIS
DOCUMENT NUMBER: PREV200100296899
TITLE: **Human protein kinases** hYAK3.
AUTHOR(S): Creasy, Caretha L. [Inventor]; Xie, Wei [Inventor, Reprint author]
CORPORATE SOURCE: Hunan, China
ASSIGNEE: SmithKline Beecham Corporation
PATENT INFORMATION: US 6165766 December 26, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 26, 2000) Vol. 1241, No. 4. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 20 Jun 2001
Last Updated on STN: 19 Feb 2002

AB hYAK3 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK3 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers including testicular cancer; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis,

acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome., among others, and diagnostic assays for such conditions.

L9 ANSWER 50 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2001:266240 BIOSIS
DOCUMENT NUMBER: PREV200100266240
TITLE: **Human protein kinase** HOACF72.
AUTHOR(S): Creasy, Caretha L. [Inventor, Reprint author]; Livi, George P. [Inventor]; Dunnington, Damien J. [Inventor]; Shabon, Usman [Inventor]
CORPORATE SOURCE: Norristown, PA, USA
ASSIGNEE: SmithKline Beecham Corporation
PATENT INFORMATION: US 6159716 December 12, 2000
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Dec. 12, 2000) Vol. 1241, No. 2. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jun 2001
Last Updated on STN: 19 Feb 2002

AB hYAK1 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK1 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthris, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome, among others, and diagnostic assays for such conditions.

L9 ANSWER 51 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:291894 BIOSIS
DOCUMENT NUMBER: PREV200000291894
TITLE: **Human protein kinase** HOACF72.
AUTHOR(S): Creasy, Caretha L. [Inventor, Reprint author]; Livi, George P. [Inventor]; Dunnington, Damien J. [Inventor]; Shabon, Usman [Inventor]
CORPORATE SOURCE: Swarthmore, PA, USA
ASSIGNEE: SmithKline Beecham Corporation, Philadelphia, PA, USA
PATENT INFORMATION: US 5972606 October 26, 1999
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 26, 1999) Vol. 1227, No. 4. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jul 2000

Last Updated on STN: 7 Jan 2002

AB hYAK1 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK1 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndromne (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome, among others, and diagnostic assays for such conditions.

L9 ANSWER 52 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 2000:278370 BIOSIS
DOCUMENT NUMBER: PREV200000278370
TITLE: **Human protein kinases** hYAK3.
AUTHOR(S): Creasy, Caretha L. [Inventor, Reprint author]; Xie, Wei [Inventor]
CORPORATE SOURCE: Hengyang, China
ASSIGNEE: SmithKline Beecham Corporation, Philadelphia, PA, USA
PATENT INFORMATION: US 5965420 October 12, 1999
SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (Oct. 12, 1999) Vol. 1227, No. 2. e-file. CODEN: OGUPE7. ISSN: 0098-1133.
DOCUMENT TYPE: Patent
LANGUAGE: English
ENTRY DATE: Entered STN: 6 Jul 2000
Last Updated on STN: 7 Jan 2002

AB hYAK3 polypeptides and polynucleotides and methods for producing such polypeptides by **recombinant** techniques are disclosed. Also disclosed are methods for utilizing hYAK3 polypeptides and polynucleotides in the design of protocols for the treatment of bone loss including osteoporosis; inflammatory diseases such as Adult Respiratory Disease Syndrome (ARDS), Rheumatoid arthritis, Osteoarthritis, Inflammatory Bowel Disease (IBD), psoriasis, dermatitis, asthma, allergies; infections such as bacterial, fungal protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2; HIV-associated cachexia and other immunodeficiency disorders; septic shock; pain; injury; cancers including testicular cancer; anorexia; bulimia; Parkinson's disease; **cardiovascular** disease including restenosis, atherosclerosis, acute heart failure, myocardial infarction; hypotension; hypertension; urinary retention; angina pectoris; ulcers; benign prostatic hypertrophy; and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington's disease or Gilles dela Tourett's syndrome., among others, and diagnostic assays for such conditions.

L9 ANSWER 53 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2000-03503 BIOTECHDS
TITLE: Polynucleotides and polypeptides for detecting and treating diseases associated with inappropriate **human protein-kinase** H2LAU20 activity levels;

expression in host cell and antibody
AUTHOR: Brun K A; Creasy C L; Dunnington D J
PATENT ASSIGNEE: SK-Beecham
LOCATION: Philadelphia, PA, USA.
PATENT INFO: US 6001623 14 Dec 1999
APPLICATION INFO: US 1998-126646 31 Jul 1998
PRIORITY INFO: US 1998-126646 31 Jul 1998
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2000-071659 [06]
AB A polynucleotide containing a nucleotide sequence encoding a protein that has at least 95% identity to a defined 620 amino acid protein sequence of protein-kinase (EC-2.7.1.37) H2LAU20 is new. Also claimed are: an **expression** system containing a polynucleotide capable of producing the 620 amino acid protein; a process for producing a **recombinant** host cell; a **recombinant** host cell; a process for producing as protein; a polynucleotide of 851 bp; a polynucleotide containing a sequence with at least 95% identity to a 1,863 bp sequence; a polynucleotide obtainable by screening an appropriate library with a DNA probe of 1,863 bp; and a complementary polynucleotide. Also disclosed are a kit containing the polynucleotide, complementary polynucleotide, protein or an antibody and an immunological/vaccine formulation. The polynucleotides and proteins are useful for treating bone loss including osteoporosis, inflammatory diseases, diabetes and associated disorders, infections, immunodeficiency disorders, cancers, Parkinson disease, **cardiovascular** disease and psychotic and neurological disease. (17pp)

L9 ANSWER 54 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1999-06904 BIOTECHDS
TITLE: New synthetic oligonucleotides inhibiting **expression** of protein-kinase-C;
antisense oligonucleotide synthesis with protein-kinase-C-inhibitor activity, used for cancer or psoriasis diagnosis or gene therapy
AUTHOR: Bennett C F; Dean N
PATENT ASSIGNEE: Isis-Pharm.
LOCATION: Carlsbad, CA, USA.
PATENT INFO: US 5882927 16 Mar 1999
APPLICATION INFO: US 1995-478178 7 Jun 1995
PRIORITY INFO: US 1995-478178 7 Jun 1995
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1999-214073 [18]
AB A new antisense oligonucleotide is up to 50 nucleotides in length, has a specified sequence, and is a protein-kinase-C-inhibitor which specifically binds **human protein-kinase** -C-alpha mRNA. Also claimed are: a method of inhibiting protein-kinase-C-alpha **expression** in cells by contacting them with the oligonucleotide, and a composition containing the oligonucleotide and a chemotherapeutic agent. The oligonucleotides may be used to diagnose abnormal **proliferative** states in tissue or other samples from patients suspected of having a hyperproliferative disease such as cancer or psoriasis. Radiolabeled oligonucleotides may also be used to perform autoradiography of tissues to determine the localization, distribution and quantitation of protein-kinase-C **expression** for research, diagnostic and therapeutic purposes. (62pp)

L9 ANSWER 55 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:672991 HCAPLUS
DOCUMENT NUMBER: 131:308409
TITLE: **Cloning** and characterization of

human STE20-related protein **kinases** and their diagnostic and therapeutic uses

INVENTOR(S): Plowman, Gregory; Martinez, Ricardo; Whyte, David
PATENT ASSIGNEE(S): Sugen, Inc., USA
SOURCE: PCT Int. Appl., 387 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9953036	A2	19991021	WO 1999-US8150	19990413
WO 9953036	A3	20000511		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2369172	AA	19991021	CA 1999-2369172	19990413
AU 9936424	A1	19991101	AU 1999-36424	19990413
EP 1073723	A2	20010207	EP 1999-918539	19990413
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002522009	T2	20020723	JP 2000-543584	19990413
US 2003050230	A1	20030313	US 1999-291417	19990413
US 6680170	B2	20040120		
US 6656716	B1	20031202	US 2000-688188	20001016
US 2004224323	A1	20041111	US 2003-725329	20031202

PRIORITY APPLN. INFO.:

US 1998-81784P	P	19980414
US 1999-291417	A3	19990413
WO 1999-US8150	W	19990413
US 2000-688188	A3	20001016

AB The present invention relates to the novel kinase polypeptides STLK2, STLK3, STLK4, STLK5, STLK6, STLK7, ZC1, ZC2, ZC3, ZC4, KHS2, SULU1, SULU3, GEK2, PAK4, and PAK5, nucleotide sequences encoding the novel kinase polypeptides, as well as various products and methods useful for the diagnosis and treatment of various kinase-related diseases and conditions. A targeted PCR **cloning** strategy and a "motif extraction" bioinformatics script were used to identify the new members of the STE20 kinase family. Multiple alignment and parsimony anal. of the catalytic domain of all of these STE20 family members reveals that these proteins cluster into 9 distinct subgroups. The present invention also includes the partial or complete sequence of these new members of the STE20 family, their classification, predicted or deduced protein structure, and a strategy for elucidating their biol. and therapeutic relevance. Many of the STE20-related kinase genes were mapped to regions associated with various human cancers, and the PAK5 gene exhibits a 3-fold amplification compared to the normal DNA copy number in PANC-1 (pancreatic epithelioid carcinoma) and OVCAR-3 (ovarian adenocarcinoma) human cell lines. Phage display data suggest potential interactions of SULU3 with SLK and SULU1 with GEK2 through their coiled-coil domains, thereby suggesting a specificity in interaction and implying that these STE20 kinases may interact with each other through homo-and hetero-dimerization. The STE20 family kinases may be of value (no data) in treating disease or disorder selected from the group consisting of immune-related diseases, myocardial infarction, cardiomyopathies, stroke, renal failure, and oxidative stress-related

neurodegenerative disorders.

L9 ANSWER 56 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:464069 HCAPLUS
DOCUMENT NUMBER: 131:99268
TITLE: **Cloning** and cDNA sequence encoding **human** cyclin-dependent **kinase** hPFTAIRE
INVENTOR(S): Reinhard, Christoph; Pot, David; Kassam, Altaf; Marenbach, Tasha; Williams, Lewis T.
PATENT ASSIGNEE(S): Chiron Corporation, USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9933962	A1	19990708	WO 1998-US27666	19981228
W: AU, CA, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6432668	B1	20020813	US 1998-206344	19981207
AU 9920169	A1	19990719	AU 1999-20169	19981228
EP 1042455	A1	20001011	EP 1998-964960	19981228
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 2003166217	A1	20030904	US 2002-153242	20020522

PRIORITY APPLN. INFO.:
US 1997-68960P P 19971230
US 1998-206344 A3 19981207
WO 1998-US27666 W 19981228

AB A human gene encoding a novel cyclin-dependent kinase termed hPFTAIRE and its **expression** products can be used to provide reagents and methods for detecting migrating or metastasizing cells. The hPFTAIRE is located on chromosome 7q21-22 and is highly **expressed** in migrating cells, such as metastatic tumor cells and the cells which migrate during gastrulation and nervous system formation. The hPFTAIRE gene is also highly **expressed** in neural tissue, particularly in the hippocampus, retina, olfactory sensory cells, spinal motoneurons, and dorsal root ganglia. HPFTAIRE **expression** is required for a cell to undergo a transition from the G2 to M phase of the cell cycle; thus, hPFTAIRE protein is involved in regulating mitosis. In addition, hPFTAIRE may associate with different cyclins which have different functions. For example, hPFTAIRE is **expressed** in the testis, a location of high meiotic activity, and may be involved in increasing meiotic activity in that organ. Compns. and methods for treating **proliferative** disorders and neoplasia are also provided.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 57 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:286070 HCAPLUS
DOCUMENT NUMBER: 130:292464
TITLE: A novel **human protein kinase** involved in regulating the cell cycle at checkpoints and a cDNA encoding it and the treatment and prevention of DNA damage
INVENTOR(S): Luyten, Walter H. M. L.; Parker, Andrew E.
PATENT ASSIGNEE(S): Janssen Pharmaceutica N.V., Belg.
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9920747	A2	19990429	WO 1998-EP6982	19981021
WO 9920747	A3	19990701		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2308013	AA	19990429	CA 1998-2308013	19981021
AU 9912322	A1	19990510	AU 1999-12322	19981021
AU 752617	B2	20020926		
EP 1025236	A2	20000809	EP 1998-955533	19981021
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001520037	T2	20011030	JP 2000-517068	19981021
NZ 503983	A	20020328	NZ 1998-503983	19981021
US 6531312	B1	20030311	US 2000-529154	20000407
PRIORITY APPLN. INFO.:			GB 1997-22320 A	19971022
			WO 1998-EP6982 W	19981021

AB A novel protein kinase that plays a role in regulating the passage of cells through cell cycle checkpoints (a checkpoint kinase) called hCDS1 is identified and a cDNA encoding it is **cloned**. The kinase interacts with the CDC25 gene product in checkpoint control and so may be of use in the treatment of diseases associated with abnormal levels of DNA damage. The gene can also be used as a reporter in assays for DNA damaging agents, e.g. by measuring levels of CDC25 phosphorylation. The gene was first identified by BLAST querying a com. sequence database for sequences similar to the cds1 kinase of Schizosaccharomyces pombe. Primers derived from this sequence were used to amplify a cDNA. Gene **expression** was essentially undetectable in all normal tissues tested but was greatly elevated in all cancer cell lines examined The kinase indirectly affects the activity of the CDC2 kinase by phosphorylating the CDC25 gene product in response to DNA damage, rather than incomplete replication as is the case in fission yeasts.

L9 ANSWER 58 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:807644 HCAPLUS
DOCUMENT NUMBER: 130:208119
TITLE: Protein-kinase-Cμ **expression** correlates with enhanced keratinocyte proliferation in normal and neoplastic mouse epidermis and in cell culture
AUTHOR(S): Rennecke, Jorg; Rehberger, Petra Andrea; Furstenberger, Gerhard; Johannes, Franz-Josef; Stohr, Michael; Marks, Friedrich; Richter, Karl Hartmut
CORPORATE SOURCE: DKFZ, Research Program Tumor Cell Regulation, Heidelberg, Germany
SOURCE: International Journal of Cancer (1999), 80(1), 98-103
CODEN: IJCNAW; ISSN: 0020-7136
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To gain insight into the biol. function of a PKC iso-enzyme, the protein kinase Cμ, the authors analyzed the **expression** pattern of this protein in mouse epidermis and keratinocytes in culture. Daily anal.

of neonatal mouse epidermis immediately after birth showed a time-dependent reduction in the PKCμ content. **Expression** of the proliferating-cell nuclear antigen (PCNA), indicative of the **proliferative** state of cells, was reduced synchronously with PKCμ as the hyperplastic state of the neonatal tissue declined. In epidermal mouse keratinocytes, fractionated according to their maturation state, PKCμ **expression** was restricted to PCNA-pos. basal-cell fractions. In primary cultures of those cells, growth arrest and induction of terminal differentiation by Ca2+ resulted in strongly reduced PKCμ **expression**, concomitantly with the loss of PCNA **expression**. Treatment of PMK-RI keratinocytes with 100 nM of the mitogen 12-O-tetradecanoylphorbol-13-acetate (TPA) resulted in activation of PKCμ, reflected by translocation from the cytosolic to the particulate fraction and by shifts in electrophoretic mobility. DNA synthesis was significantly inhibited by the PKCμ inhibitor Goedecke 6976, while Goedecke 6983 did not inhibit PKCμ. Carcinomas generated according to the 2-stage carcinogenesis protocol in mouse skin consistently exhibited high levels of PKCμ. These data correlate PKCμ **expression** with the **proliferative** state of murine keratinocytes and point to a role of PKCμ in growth stimulation. A correlation between PKCμ **expression** and enhanced cell proliferation was also observed for NIH3T3 fibroblasts transfected with and overexpressing human PKCμ.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 59 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 6

ACCESSION NUMBER: 1998-11155 BIOTECHDS
TITLE: New DNA encoding hYAK3 **human protein-kinase** polypeptides; vector-mediated gene transfer and **expression** in host cell, antibody, agonist, antagonist, e.g. antisense sequence, and DNA probe, used for disease diagnosis, therapy or gene therapy, etc.
AUTHOR: Creasy C L; Xie W
PATENT ASSIGNEE: SK-Beecham
LOCATION: Philadelphia, PA, USA.
PATENT INFO: EP 870825 14 Oct 1998
APPLICATION INFO: EP 1998-301641 5 Mar 1998
PRIORITY INFO: US 1997-835170 7 Apr 1997; US 1997-40618 5 Mar 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-523155 [45]

AB A new DNA sequence has at least 80% identity to a DNA sequence encoding a **human protein-kinase** (hYAK3, EC-2.7.1.37) with a specified 588 or 568 amino acid protein sequence. Also claimed are: a DNA probe containing at least 15 contiguous nucleotides of the new DNA; a DNA or RNA molecule **expression** system for **expressing** the protein in a host cell; a host cell containing the **expression** system and **expressing** the protein; an antibody immunospecific for the protein; and an agonist and antagonist that modulate activity of the protein. The DNA, protein and agonist may be used for therapy or gene therapy of subjects in need of enhanced hYAK3 activity, and the antagonist (e.g. antisense sequence) may be used to inhibit hYAK3 activity. Diseases associated with hYAK3 include osteoporosis, rheumatoid arthritis, bacterium, protozoon, fungus or virus infection, e.g. HIV virus), cancers, Parkinson disease, **cardiovascular** diseases e.g. restenosis, and psychotic and neurological diseases, e.g. Huntington chorea. The DNA probe may be used for disease diagnosis by detecting a mutation in the new gene, and the cells may be used for drug screening. (28pp)

L9 ANSWER 60 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
DUPLICATE 7
ACCESSION NUMBER: 1998-10069 BIOTECHDS
TITLE: **Recombinant human protein-kinase**-hYAKI (HOACF72);
protein and DNA sequence useful for the treatment and diagnosis of a wide range of diseases and disorders and for nucleic acid vaccine and **recombinant** vaccine construction
AUTHOR: Creasy C L; Livi G P; Dunnington D J; Shabon U
PATENT ASSIGNEE: SK-Beecham
LOCATION: Philadelphia, PA, USA.
PATENT INFO: EP 860506 26 Aug 1998
APPLICATION INFO: EP 1998-301124 16 Feb 1998
PRIORITY INFO: US 1997-802466 19 Feb 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-439344 [38]
AB **Recombinant** hYAK1 proteins and DNA sequences and methods of protein-kinase (EC-2.7.1.37) production are claimed. Also claimed are methods for utilizing hYAK1 proteins and DNA sequences in the design of protocols for therapy of bone loss e.g. osteoporosis, inflammatory disease e.g adult respiratory disease syndrome, Rheumatoid arthritis, osteoarthritis, inflammatory bowel disease, psoriasis, dermatitis, asthma, allergies, infections (such as bacterial, fungal, protozoan, HIV virus-1 or HIV virus-2), HIV virus-associated cachexia and other immunodeficiency disorders, septic shock, pain, injury, cancers, anorexia, bulimia, Parkinson disease, **cardiovascular** disease including restenosis, atherosclerosis, myocardial infarction, hypotension, hypertension, urinary retention, angina pectoris, ulcers, benign prostatic hypertrophy, psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, severe mental retardation and dyskinesias, such as Huntington disease or Gilles dela Tourett syndrome, among others. Diagnostic assays for these conditions are also claimed.

L9 ANSWER 61 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1998-11217 BIOTECHDS
TITLE: New serine-threonine-kinase and related nucleic acid, vectors, transformed cells;
human recombinant protein-**kinase** preparation by vector **expression** in host cell, antisense sequence and ribozyme, used for smooth muscle disease or cancer therapy or gene therapy, etc.
AUTHOR: Bandman O; Guegler K J; Lal P
PATENT ASSIGNEE: Incyte-Pharm.
LOCATION: Palo Alto, CA, USA.
PATENT INFO: WO 9841639 24 Sep 1998
APPLICATION INFO: WO 1998-US4547 9 Mar 1998
PRIORITY INFO: US 1997-818024 14 Mar 1997
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1998-521225 [44]
AB A new **human protein-kinase** (EC-2.7.1.37) has a specified 376 amino acid protein sequence. Also claimed are: fragments of the protein; a specified 1,498 bp DNA sequence encoding the protein, cDNA and DNA that hybridizes to the new sequence; an **expression** vector containing the DNA; a host cell containing the vector; antibodies that specifically bind to the protein; and agonists or antagonists that specifically bind to the protein and modulate its activity. The new protein is associated with the development of cancer and smooth muscle diseases. The DNA and protein may be used for therapy

or gene therapy of hypertension, myocardial infarction, **cardiovascular** shock, angina, arrhythmia, asthma and migraine. Antagonists (e.g. antisense sequences or ribozymes) may be used to treat or prevent a range of tumors, e.g. adenocarcinoma, sarcoma, melanoma, lymphoma, leukemia and myeloma. The protein may also be used to raise antibodies for diagnosis, drug screening or to isolate the protein from natural sources. The DNA may be used as DNA probes and DNA primers for disease diagnosis, identification of related sequences, mapping or for screening specific inhibitors. (63pp)

L9 ANSWER 62 OF 69 BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
ACCESSION NUMBER: 1994-13342 BIOTECHDS
TITLE: **Recombinant** protein-kinase-C production by vector **expression** in mammal or insect cell culture; protein-kinase-C antagonist screening for application in cancer, diabetes, asthma, etc. therapy
PATENT ASSIGNEE: Garvan-Inst.Med.Res.
PATENT INFO: WO 9418328 18 Aug 1994
APPLICATION INFO: WO 1994-AU52 4 Feb 1994
PRIORITY INFO: GB 1993-19150 16 Sep 1993; GB 1993-2342 6 Feb 1993
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 1994-279749 [34]
AB The following are claimed: (1) a DNA molecule (I) (of specified DNA sequence) which encodes **human protein-kinase** -C (EC-2.7.1.37); (2) a vector containing (I); (3) a mammal or insect cell transformed with (2); (4) production of protein-kinase-C by culturing (3); (5) antibodies which bind to protein-kinase-C; (6) pure protein-kinase-C; (7) a method of screening compounds for their ability to regulate **expression** of protein-kinase-C in a cell which involves exposing (3) to the compound and assessing the level of **expression** of (I); and (8) screening compounds for **human protein-kinase**-C antagonist activity by exposing the **human protein-kinase**-C produced in (4) to compounds and assessing the activity of **human protein -kinase**-C. Protein-kinase-C and antagonists can be used for treating diabetes, to treat cancer (especially lung cancer) and asthma. Compounds which regulate the activity of protein-kinase-C can be used for treatment of hyperglycemia, hyperlipidemia, hypertension, **cardiovascular** disease and certain eating disorders. (24pp)

L9 ANSWER 63 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
ACCESSION NUMBER: 1994:543015 BIOSIS
DOCUMENT NUMBER: PREV199598002563
TITLE: Identification and characterization of DBK, a novel putative serine/threonine protein kinase from human endothelial cells.
AUTHOR(S): Chu, Wei; Presky, David H. [Reprint author]; Danho, Waleed; Swerlick, Robert A.; Burns, Daniel K.
CORPORATE SOURCE: Dep. Inflammation/Autoimmune Dis., Hoffman-La Roche Inc., 340 Kingsland St., Nutley, NJ 07110-1199, USA
SOURCE: European Journal of Biochemistry, (1994) Vol. 225, No. 2, pp. 695-702.
CODEN: EJBCAI. ISSN: 0014-2956.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: EMBL-X80229
ENTRY DATE: Entered STN: 22 Dec 1994
Last Updated on STN: 23 Feb 1995
AB Protein kinases are involved in signal transduction pathways and play important roles in the regulation of cell functions. cDNA **clones** encoding a novel serine/threonine protein kinase sequence, designated as

DBK, were isolated from cDNA libraries made from human endothelial cells. The compiled nucleotide sequence is 1636 base pairs long, consisting of an open reading frame encoding a 479-amino-acid protein with a calculated molecular mass of 53 kDa. The deduced amino acid sequence contains a protein kinase catalytic domain of 263 residues which includes all the characteristic features of a serine/threonine protein kinase. The invariant amino acid residues scattered throughout the catalytic domain of almost all known protein kinases are also found in DBK. Sequence comparison of DBK catalytic domain shows approximately 51% sequence identities to that of **human protein kinase** C family members. DBK shares the highest sequence identity, 53%, to that of Drosophila PKC. Northern blot analysis of various human tissues and cultured cell lines with a DBK gene-specific cDNA probe demonstrated a single band of 2.0 kb that is **expressed** in all tissues and cell lines examined. Although the **expression** of DBK kinase was detected in all human tissues analyzed, the levels of **expression** varied significantly, with the highest **expression** detected in lung and heart, and the lowest **expression** found in brain and liver. Anti-DBK peptide-specific rabbit antisera were prepared, and were capable of immunoprecipitating DBK protein from COS cells transfected with DBK cDNA. The DBK gene is a single-copy gene, and is highly conserved across species from human to yeast. Using somatic cell hybrids, the DBK gene has been localized to human chromosome 14. The ubiquitous **expression** and high degree of conservation of DBK across species suggest that DBK may play an important role in cell functions.

L9 ANSWER 64 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN DUPLICATE 8

ACCESSION NUMBER: 1994:42450 BIOSIS
DOCUMENT NUMBER: PREV199497055450
TITLE: Molecular **cloning**, calpain sensitivity and **proliferative** effect of **human protein kinase** C delta (delta) on megakaryocytic and vascular cells.
AUTHOR(S): Raychowdhury, Malay K.; Xu, Yanping; Chang, James D.; Ariyoshi, Hideo; Kent, K. Craig; Ware, J. Anthony
CORPORATE SOURCE: Cardiovascular Div., Beth Israel Hosp., Harvard Med. Sch., Boston, MA, USA
SOURCE: Circulation, (1993) Vol. 88, No. 4 PART 2, pp. I128. Meeting Info.: 66th Scientific Sessions of the American Heart Association. Atlanta, Georgia, USA. November 8-11, 1993.
CODEN: CIRCAZ. ISSN: 0009-7322.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 3 Feb 1994
Last Updated on STN: 25 Mar 1994

L9 ANSWER 65 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1993:486697 HCAPLUS
DOCUMENT NUMBER: 119:86697
TITLE: Regulation of prolactin receptor **expression** by the tumor promoting phorbol ester 12-O-tetradecanoylphorbol-13-acetate in human breast cancer cells
AUTHOR(S): Ormandy, Christopher J.; Lee, Christine S. L.; Kelly, Paul A.; Sutherland, Robert L.
CORPORATE SOURCE: Garvan Inst. Med. Res., St. Vincent's Hosp., Sydney, 2010, Australia
SOURCE: Journal of Cellular Biochemistry (1993), 52(1), 47-56
CODEN: JCEBD5; ISSN: 0730-2312
DOCUMENT TYPE: Journal

LANGUAGE: English

AB In both the normal and malignant human breast, cellular sensitivity to the **proliferative** and differentiative activities of the lactogenic hormones is conferred by **expression** of the prolactin receptor (PRLR). Recent findings have suggested that PRLR may also be regulated by protein kinase C in addition to steroids. This possibility was examined by studying the effect of various modulators of PKC activity on PRLR binding activity and gene **expression** in 5 PRLR-pos. human breast cancer cell lines. Treatment with TPA, a tumor promoter and modulator of PKC activity, decreased PRLR binding activity in all cell lines examined In MCF-7 cells, 10 nM TPA caused a 70% loss of PRLR mRNA after 12 h, paralleled 3 h later by a comparable loss of cell surface PRLR. Mezerein, a non-phorbol ester modulator of PKC activity and 1,2-dioctanoyl-sn-glycerol, a permeant analog of the endogenous activator of PKC, also reduced PRLR binding activity and gene **expression** in a time- and concentration-dependent manner. Cycloheximide failed to abrogate to TPA-induced decline in PRLR mRNA levels, indicating that this process was not dependent upon continuing protein synthesis. No change in the stability of PRLR mRNA was observed during 24 h of TPA treatment and TPA reduced the rate of PRLR gene transcription within 3 h of treatment. The results demonstrate that modulators of PKC activity reduce PRLR binding activity and gene **expression**, implicating this signal transduction pathway in PRLR regulation.

L9 ANSWER 66 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1992:504035 BIOSIS
DOCUMENT NUMBER: PREV199294122560; BA94:122560
TITLE: PLATELET-DERIVED GROWTH FACTOR-INDUCED TRANSCRIPTION OF THE VASCULAR ENDOTHELIAL GROWTH FACTOR GENE IS MEDIATED BY PROTEIN KINASE C.
AUTHOR(S): FINKENZELLER G [Reprint author]; MARME D; WEICH H A; HUG H
CORPORATE SOURCE: INSTITUTE MOLECULAR CELL BIOLOGY, UNIVERSITY FREIBURG, C/O GOEDECKE AG, D-7800 FREIBURG, GER
SOURCE: Cancer Research, (1992) Vol. 52, No. 17, pp. 4821-4823. CODEN: CNREA8. ISSN: 0008-5472.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 9 Nov 1992
Last Updated on STN: 10 Nov 1992

AB Platelet-derived growth factor and phorbol ester cause an increase in vascular endothelial growth factor (VEGF) mRNA **expression** in control NIH 3T3 fibroblasts and NIH 3T3 fibroblasts overexpressing **human protein kinase** C(PKC) μ . In the case of phorbol ester-induced VEGF **expression**, the VEGF nRNA levels were significantly higher in cells overexpressing human PKC μ as compared to control cells. In cells stimulated with platelet-derived growth factor or phorbol ester, induction of **expression** was lost after down-regulation of PKC. This indicates that PKC is involved in the signal transduction leading to VEGF **expression**.

L9 ANSWER 67 OF 69 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1991:556864 HCAPLUS
DOCUMENT NUMBER: 115:156864
TITLE: **Expression** of lineage-restricted protein tyrosine kinase genes in human natural killer cells
AUTHOR(S): Biondi, Andrea; Paganin, Carla; Rossi, Vincenzo; Benvestito, Serena; Perlmutter, Roger M.; Mantovani, Alberto; Allavena, Paola
CORPORATE SOURCE: Clin. Pediatr., Univ. Milano, Milan, Italy
SOURCE: European Journal of Immunology (1991), 21(3), 843-6

CODEN: EJIMAF; ISSN: 0014-2980
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The hematopoietic lineage derivation, recognition structures, and associated signal transduction pathways of CD3- natural killer (NK) cells have not been identified. Protein tyrosine kinases (PTK) structurally related to the product of the c-src protooncogene are differentially **expressed** in distinct hematopoietic differentiation lineages and may participate in specific signal transduction pathways. The present study was aimed at characterizing the **expression** of src-related PTK genes in normal human NK cells and in cells from patients with CD3- granular lymphocyte **proliferative** disease. CD3- normal NK cells had high levels of transcripts of the lck gene, which is highly **expressed** in T cells. CD8+ and CD8- NK cells **expressed** similarly high levels of lck mRNA. In contrast, NK cells **expressed** very low levels (25-80-fold less than monocytes) of mRNA encoding the myelomonocytic PTK hck. NK cells also **expressed** fyn transcripts (p59fyn reportedly assocs. with the T cell receptor in T cells) and fgr transcripts, the latter observation confirming a previous report. The pattern of **expression** of the lineage-restricted PTKs lck and hck in NK cells is consistent with the hypothesis of an ontogenic relationship of this population with the lymphocytic rather than myelocytic differentiation pathway. PTK **expressed** in NK cells may participate in signal transduction pathways in this cell population.

L9 ANSWER 68 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1991:27321 BIOSIS
DOCUMENT NUMBER: PREV199191016672; BA91:16672
TITLE: ACTIVATION OF PROTEIN KINASE C IS CRUCIAL IN THE REGULATION OF ICAM-1 **EXPRESSION** ON ENDOTHELIAL CELLS BY INTERFERON-GAMMA.
AUTHOR(S): RENKONEN R [Reprint author]; MENNANDER A; USTINOV J; MATTILA P
CORPORATE SOURCE: DEP BACTERIOL IMMUNOL TRANSPLANTATION LAB, UNIV HELSINKI, HELSINKI, FINLAND
SOURCE: International Immunology, (1990) Vol. 2, No. 8, pp. 719-724.
ISSN: 0953-8178.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 3 Jan 1991
Last Updated on STN: 4 Jan 1991

AB ICAM-1 (CD54) is **expressed** on endothelial cells and serves as an important ligand for the white cell adhesion molecule CD11a/CD18 (LFA-1). Many studies have demonstrated that increased numbers of white cells binding to endothelial cells correlate with the level of ICAM-1 **expression** on endothelial cells. Several cytokines, including IFN-γ, increase ICAM-1 **expression** in cultured human endothelial cells. We have analysed the second intracellular messenger pathways involved in IFN-γ-induced up-regulation of ICAM-1 **expression** in endothelial cells. IFN-γ induced a rapid activation of phospholipase C, leading to a breakdown of phosphoinositoldiphosphate (PIP2) into diacyglycerol (DAG) and inositotriphosphate (IP3). DAG is a natural activator of the protein, kinase C pathway. We were able to show that the effect induced by IFN-γ could be inhibited by a protein kinase C inhibitor, H7, in a dose-dependent manner and mimicked by PMA, which stimulates protein kinase C. IFN-γ induced a a 5-fold translocation (activation) of protein kinase C from the cytosol into the endothelial cell membrane. Elevation of the IP3 levels led to activation of the calcium-dependent pathway. An inhibitor of calcium calmodulin, W7, decreased the IFN-γinduced

ICMA-1 **expression**, and addition of calciuum ionophore to endothelial cells could replace IFN-γ in the up-regulation of ICAM-1. Finally, IFN-γ caused a significant increase in the calcium flux of endothelial cells. cAMP and cGMP had no effect on the regulation of ICAM-1 **expression** on cultured human endothelial cells.

L9 ANSWER 69 OF 69 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

ACCESSION NUMBER: 1987:484680 BIOSIS
DOCUMENT NUMBER: PREV198784119323; BA84:119323
TITLE: DEFECTIVE INTERLEUKIN 2 RECEPTOR **EXPRESSION** IS ASSOCIATED WITH THE T CELL DYSFUNCTION SUBSEQUENT TO BONE MARROW TRANSPLANTATION.
AUTHOR(S): LOPEZ-BOTET M [Reprint author]; DE LANDAZURI M O; IZQUIERDO M; RAMIREZ A; FIGUERA A; CAMARA R; FERNANDEZ-RANADA J
CORPORATE SOURCE: S DE INMUNOL, H DE LA PRINCESA, DIEGO DE LEON 62, MADRID 28006, SPAIN
SOURCE: European Journal of Immunology, (1987) Vol. 17, No. 8, pp. 1167-1174.
CODEN: EJIMAF. ISSN: 0014-2980.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 17 Nov 1987
Last Updated on STN: 17 Nov 1987

AB In the present work we have used monoclonal antibodies (mAb) as probes to attempt a dissection of the mechanisms underlying the immunodeficiency subsequent to bone marrow transplantation (BMT). To this end we have studied 19 allogeneic BMT recipients, analyzing the **proliferative** response of peripheral blood mononuclear cells (PBMC) after inactivation with either phytohemagglutinin (PHA), anti-CD3 or anti-CD2 mAb. All patients presented normal proportions of CD2+ and CD3+ lymphocytes, as assessed by flow cytometry. Our results indicated that in most cases both CD2 and CD3-mediated activation pathways were inefficient to trigger normal T cell proliferation. The addition of exogenous interleukin 2 (IL 2) did not restore in most cases the **proliferative** response, pointing out that additional defects contribute to the hyporesponsiveness. This was more evident in the group of patients studied during the first 6 months. To further dissect the T cell defect we analyzed the effect of a phorbol ester (phorbol myristate acetate, PMA), which activates protein kinase C, on the anti-CD3-induced response. Our data showed that PMA synergized with anti-CD3 similarly to exogenous IL2, and restored the proliferatige response only in certain cases. The **expression** of IL2 receptors (CD25) as assessed by cytofluorimetry, after either PHA or anti-CD3 and PMA stimulation, was shown to be depressed, and the addition of IL2 did not restore it. Finally, we observed that the early increase of intracytoplasmic Ca2+ after anti-CD3 stimulation was comparable to that detected in normal PBMC. Althogether these results indicate that a diminished CD25 **expression** is associated with the T cell defect, and cannot apparently be attributed to an inability of the CD3 molecule to transduce early activation signals thus suggesting that either protein kinase C itself or an as yet undefined metabolic step preceding IL2 receptor **expression** is abnormal in variable proportions of T cells after BMT, and constitutes another manifestation of this complex immunodeficiency.

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(FILE 'HOME' ENTERED AT 15:24:31 ON 12 MAY 2005)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 15:25:24 ON 12 MAY 2005

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L1      1314489 S KINASE?
L2        21792 S HUMAN (3W) L1
L3      7062483 S CLON? OR EXPRESS? OR RECOMBINANT
L4        10597 S L2 AND L3
L5      2637778 S CARDIOVASCULAR OR PROLIFERATIVE
L6          395 S L4 AND L5
L7         2397 S "HUMAN PROTEIN KINASE?"
L8           81 S L6 AND L7
L9           69 DUP REM L8 (12 DUPLICATES REMOVED)

=> e libermann r/au
E1            1     LIBERMANN P/AU
E2            1     LIBERMANN P M/AU
E3            1 --> LIBERMANN R/AU
E4            1     LIBERMANN R C/AU
E5            1     LIBERMANN R K/AU
E6            1     LIBERMANN R P/AU
E7            1     LIBERMANN R W/AU
E8            1     LIBERMANN ROSANA K/AU
E9            4     LIBERMANN S/AU
E10           1     LIBERMANN S L/AU
E11          37     LIBERMANN T/AU
E12         322     LIBERMANN T A/AU

=> e libermann r k/au
E1            1     LIBERMANN R/AU
E2            1     LIBERMANN R C/AU
E3            1 --> LIBERMANN R K/AU
E4            1     LIBERMANN R P/AU
E5            1     LIBERMANN R W/AU
E6            1     LIBERMANN ROSANA K/AU
E7            4     LIBERMANN S/AU
E8            1     LIBERMANN S L/AU
E9           37     LIBERMANN T/AU
E10         322     LIBERMANN T A/AU
E11           4     LIBERMANN T A */AU
E12           1     LIBERMANN T R/AU

=> e acton s l/au
E1            3     ACTON S A/AU
E2            7     ACTON S J/AU
E3           55 --> ACTON S L/AU
E4            3     ACTON S M/AU
E5           46     ACTON S T/AU
E6            1     ACTON SARAH A/AU
E7           13     ACTON SCOTT T/AU
E8            2     ACTON SHANNON/AU
E9            3     ACTON STEPHEN/AU
E10           7     ACTON STEPHEN J/AU
E11          55     ACTON SUSAN/AU
E12          36     ACTON SUSAN L/AU

=> s e3-e12
L10         221 ("ACTON S L"/AU OR "ACTON S M"/AU OR "ACTON S T"/AU OR "ACTON
              SARAH A"/AU OR "ACTON SCOTT T"/AU OR "ACTON SHANNON"/AU OR "ACTO
              N STEPHEN"/AU OR "ACTON STEPHEN J"/AU OR "ACTON SUSAN"/AU OR
              "ACTON SUSAN L"/AU)

=> e kapeller (w)libermann
E1           13     KAPELLEN/BI
E2          114     KAPELLER/BI
E3            0 --> KAPELLER (W)LIBERMANN/BI
E4            1     KAPELLERADLER/BI
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E5            1     KAPELLEVICH/BI
E6            3     KAPELLI/BI
E7            1     KAPELLIMESTARI/BI
E8            1     KAPELLSKAR/BI
E9            2     KAPELLY/BI
E10           2     KAPELNA/BI
E11           1     KAPELNER/BI
E12           1     KAPELNO/BI

=> s e3
L11           0 "KAPELLER (W)LIBERMANN"/BI

=> s e2
L12         114 KAPELLER/BI

=> d 1-2 ibib

L12  ANSWER 1 OF 114      MEDLINE on STN
ACCESSION NUMBER:    1998206123      MEDLINE
DOCUMENT NUMBER:     PubMed ID: 9544479
TITLE:               From personae non gratae in Vienna 1938 to respected
                     citizens of Edinburgh: a vignette of my parents Dr. Ernst
                     Adler and Dr. Regina Kapeller-Adler.
AUTHOR:              Adler-Kastner L
CORPORATE SOURCE:    Pharmakologisches Institut, Universitat Wien, Austria.
SOURCE:              Wiener klinische Wochenschrift, (1998 Feb 27) 110 (4-5)
                     174-80.
                     Journal code: 21620870R. ISSN: 0043-5325.
PUB. COUNTRY:        Austria
DOCUMENT TYPE:       Biography
                     Historical
                     Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals; History of Medicine
ENTRY MONTH:         199806
ENTRY DATE:          Entered STN: 19980625
                     Last Updated on STN: 19980625
                     Entered Medline: 19980617

L12  ANSWER 2 OF 114      MEDLINE on STN
ACCESSION NUMBER:    96029703      MEDLINE
DOCUMENT NUMBER:     PubMed ID: 7592789
TITLE:               Phosphoinositide 3-kinase binds constitutively to
                     alpha/beta-tubulin and binds to gamma-tubulin in response
                     to insulin.
AUTHOR:              Kapeller R; Toker A; Cantley L C; Carpenter C L
CORPORATE SOURCE:    Department of Medicine, Beth Israel Hospital, Boston,
                     Massachusetts 02215, USA.
CONTRACT NUMBER:     GM 36624 (NIGMS)
SOURCE:              Journal of biological chemistry, (1995 Oct 27) 270 (43)
                     25985-91.
                     Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY:        United States
DOCUMENT TYPE:       Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:            English
FILE SEGMENT:        Priority Journals
ENTRY MONTH:         199512
ENTRY DATE:          Entered STN: 19960124
                     Last Updated on STN: 19980206
                     Entered Medline: 19951214


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     (FILE 'HOME' ENTERED AT 15:24:31 ON 12 MAY 2005)

     FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS,
     LIFESCI' ENTERED AT 15:25:24 ON 12 MAY 2005
L1      1314489 S KINASE?
L2        21792 S HUMAN (3W) L1
L3      7062483 S CLON? OR EXPRESS? OR RECOMBINANT
L4        10597 S L2 AND L3
L5      2637778 S CARDIOVASCULAR OR PROLIFERATIVE
L6          395 S L4 AND L5
L7         2397 S "HUMAN PROTEIN KINASE?"
L8           81 S L6 AND L7
L9           69 DUP REM L8 (12 DUPLICATES REMOVED)
                E LIBERMANN R/AU
                E LIBERMANN R K/AU
                E ACTON S L/AU
L10         221 S E3-E12
                E KAPELLER (W)LIBERMANN
L11           0 S E3
L12         114 S E2

=> s l10 or l12
L13         335 L10 OR L12

=> s l7 and l13
L14           3 L7 AND L13

=> dup rem l14
PROCESSING COMPLETED FOR L14
L15           2 DUP REM L14 (1 DUPLICATE REMOVED)

=> d 1-2 ibib ab

L15   ANSWER 1 OF 2  BIOTECHDS COPYRIGHT 2005 THE THOMSON CORP. on STN
      DUPLICATE 1
ACCESSION NUMBER: 2003-12936  BIOTECHDS
TITLE:            Novel isolated human protein
                  kinase, designated 59079 or 12599 polypeptide, useful
                  as diagnostic and therapeutic agents for preventing
                  cardiovascular diseases, proliferative disorders, and protein
                  kinase disorders;
                     recombinant protein production and sense and antisense
                     sequence for use in gene therapy
AUTHOR:           KAPELLER-LIBERMANN R; ACTON S L
PATENT ASSIGNEE:  MILLENNIUM PHARM INC
PATENT INFO:      US 2002168742 14 Nov 2002
APPLICATION INFO: US 2002-77130 15 Feb 2002
PRIORITY INFO:    US 2002-77130 15 Feb 2002; US 2001-269201 15 Feb 2001
DOCUMENT TYPE:    Patent
LANGUAGE:         English
OTHER SOURCE:     WPI: 2003-298729 [29]
AB    DERWENT ABSTRACT:
      NOVELTY - An isolated human protein kinase,
      59079 or 12599 polypeptide (I), encoded by nucleic acid molecule
      comprising at least 85 % identity to a 8106, 7893, 24120 or 23907
      nucleotide sequence (S1), given in the specification, or its complement,
      a naturally occurring variant of polypeptide having a 2630 or 7968 amino
      acid sequence (S2), given in the specification, or its fragment, is new.
           DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for: (1)
      an isolated nucleic acid molecule (II) comprising a sequence having at
      least 85 % identity to S1, a sequence comprising a fragment of at least
      300 nucleotides of S1, a sequence encoding (I), or a nucleic acid
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molecule which encodes a complement of the above, under stringent conditions; (2) a host cell (III), preferably non-human mammalian host cell containing (II); (3) producing (I); (4) an antibody (Ab) which selectively binds (I); (5) detecting the presence of (II) in a sample, by contacting the sample with nucleic acid probe or primer (P) which selectively hybridizes to (II), and determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample; (6) a kit (IV) comprising a compound which selectively binds (I) or a compound which selectively hybridizes to (II), and instructions for use; (7) identifying a compound which binds to (I), by contacting (I) or a cell expressing (I) with a test compound and determining whether (I) binds to the test compound; and (8) modulating the activity of (I), by contacting (I) or a cell expressing (I) with a compound which binds to (I) in a sufficient concentration to modulate the activity of (I).

WIDER DISCLOSURE - (1) an isolated nucleic acid molecule antisense to (II); (2) nucleic acid constructs or vectors including (II); (3) a two-dimensional array having a number of addresses, each having a unique capture probe; (4) molecular beacon oligonucleotide primer and probe molecules; (5) assays for determining a genetic alteration in (I) or (II); (6) analyzing a sample by contacting the sample with the above array and detecting binding of the sample to the array; (7) detectably labeled 59079 or 12599 probes and primers; (8) 59079 or 12599 chimeric or fusion proteins; (9) non-human transgenic animals comprising (II), and a population of cells from the transgenic animal; (10) novel agents identified by the screening methods; (11) determining if a subject is at a risk for a disorder related to a lesion in or the misexpression of a gene encoding 59079 or 12599; (12) monitoring the influence of agents (e.g. drugs) on the expression or activity of 59079 or 12599 protein; (13) analyzing a number of capture probes, and analyzing 59079 or 12599, e.g. structure, function or relatedness to other nucleic acid or amino acid sequences; (14) a set of oligonucleotides for identifying single nucleotide polymorphism; (15) a computer readable record of a 59079 or 12599 sequence that includes recording the sequence on a computer-readable matrix; (16) making the above computer readable record; (17) a medium for holding instructions for performing a method for determining whether the subject has a protein kinase receptor-associated or another 59079 or 12599-associated disease or disorder, preferably in an electronic system or in a network; (18) a business method for determining whether the subject has a protein kinase receptor-associated or another 59079 or 12599-associated disease or disorder; and (19) an array comprising a 59079 or 12599 sequence.

BIOTECHNOLOGY - Preparation: (I) is produced by culturing (III) under conditions in which (II) is expressed (claimed). Preferred Method: The sample comprises mRNA molecules, and is contacted with a nucleic acid probe. Binding of test compound with (I) is detected by direct binding of test compound/polypeptide binding, detection of binding using a competition binding assay and a detection of binding using an assay for 59079- or 12599-mediated signal transduction. Preferred Sequence: (I) further comprises heterologous amino acid sequences. (II) further comprises vector nucleic acid sequences and a nucleic acid sequence encoding the heterologous polypeptide.

ACTIVITY - Cardiant; Antiatherosclerotic; Cytostatic; Anti-HIV; Hemostatic; Immunosuppressive; Antianemic; Antidiabetic; Antipsoriatic; Antiinflammatory; Antirheumatic; Antiarthritic; Neuroprotective.

MECHANISM OF ACTION - Gene therapy; modulator of expression or activity of 59079 or 12599 molecules. No biological data is given.

USE - Ab is useful for detecting the presence of (I) in a sample. (I) is useful for identifying a compound which modulates the activity of (I). (All claimed.) (I) and (II) are useful as diagnostic and therapeutic agents for preventing a disease or condition associated with an aberrant or unwanted 59079 or 12599 activity in a subject, including cardiovascular diseases such as heart failure, and myocardial infarction; disorders involving blood vessels such as atherosclerosis, and Kaposi's

sarcoma; blood platelets disorder such as thrombocytopenia, leukemia, Hodgkin's disease, hemolytic anemia; cellular proliferative disorders such as cancer; and protein kinase disorders such as autoimmune disorders, diabetes mellitus, psoriasis, inflammatory bowel disease, rheumatoid arthritis, and multiple sclerosis. (I), (II) and Ab are useful in screening assays, detection assays (e.g. forensic biology), and predictive medicine (e.g. diagnostic assays, prognostic assays, and monitoring clinical trials and pharmacogenomics). (I) and Ab are useful as reagents for diagnosing and treating 59079 or 12599-mediated disorders. (I) and (II) are useful as query sequences to perform a search against public databases to identify other family members or related sequences. (I) is useful as an immunogen to generate Ab, and as a bait protein in yeast two-hybrid or three-hybrid assay to identify other proteins which bind to or interact with 59079 or 12599. (II) is useful as hybridization probe to identify (II), or as polymerase chain reaction (PCR) primer for the amplification or mutation of (II). (II) is useful in gene therapy, to express (I), to detect 59079 or 12599 mRNA or a genetic alteration in a 59079 or 12599 gene, and to modulate 59079 or 12599 activity. (II) is useful in chromosome mapping, to identify an individual from a minute biological sample (tissue typing), and to aid in forensic identification of the biological sample. Ab is useful to isolate and purify (I), to detect (I) and to diagnostically monitor protein levels in tissue as part of a clinical testing procedure. Fragments of (II) are useful as hybridization probes and primers. (I) and (II) are useful as markers of disorders or disease states, drug activity and pharmacogenomic profile of a subject. (IV) is useful for producing non-human transgenic animals.

ADMINISTRATION - (I) is administered at a dose of 0.001-30, preferably 5-6 mg/kg, through parenteral, oral, transdermal, systemic, transmucosal or rectal route.

EXAMPLE - None given. (119 pages)

L15 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2002:539846 HCAPLUS
DOCUMENT NUMBER: 137:104808
TITLE: Protein and cDNA sequences of novel **human protein kinases** 58848
INVENTOR(S): Kapeller-Libermann, Rosana; **Acton, Susan**
PATENT ASSIGNEE(S): Millennium Pharmaceuticals, Inc., USA
SOURCE: PCT Int. Appl., 104 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055713	A2	20020718	WO 2001-US44346	20011126
WO 2002055713	A3	20021031		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-254401P P 20001208

AB The invention provides isolated human nucleic acid mols., designated 58848 nucleic acid mols., which encode novel protein kinases. The invention relates to methods, vectors and host cells for recombinant expression of

the said protein kinases 58848. The invention still further provides isolated 58848 proteins, antigenic peptides and anti-588848 antibodies. Diagnostic and therapeutic methods utilizing compns. of the invention are also provided. The invention also relates to screening drugs by competition binding assay and assay for 58848-mediated activation of protein kinase activity.

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(FILE 'HOME' ENTERED AT 15:24:31 ON 12 MAY 2005)

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 15:25:24 ON 12 MAY 2005

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L1       1314489 S KINASE?
L2         21792 S HUMAN (3W) L1
L3       7062483 S CLON? OR EXPRESS? OR RECOMBINANT
L4         10597 S L2 AND L3
L5       2637778 S CARDIOVASCULAR OR PROLIFERATIVE
L6           395 S L4 AND L5
L7          2397 S "HUMAN PROTEIN KINASE?"
L8            81 S L6 AND L7
L9            69 DUP REM L8 (12 DUPLICATES REMOVED)
                 E LIBERMANN R/AU
                 E LIBERMANN R K/AU
                 E ACTON S L/AU
L10          221 S E3-E12
                 E KAPELLER (W)LIBERMANN
L11            0 S E3
L12          114 S E2
L13          335 S L10 OR L12
L14            3 S L7 AND L13
L15            2 DUP REM L14 (1 DUPLICATE REMOVED)
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	L #	Hits	Search Text
1	L1	59148	kinase$2
2	L2	481463	human
3	L3	19179	l1 same l2
4	L4	730730	clon$3 or express$3 or recombinant
5	L5	11137	l3 same l4
6	L6	67692	proliferative or cardiovascular
7	L7	329	l5 same l6
8	L8	0	"human protein kinase$2"
9	L9	294	"human protein kinase"
10	L10	1	l7 same l9
11	L11	19	l7 and l9
12	L12	7171	KAPELLER-LIBERMANN-ROSANA ACTON
13	L13	30	l7 and l12
14	L14	41	l9 and l12

	U	1	Document ID	Issue Date	Pages	Title
1	X		US 20040171539 A1	20040902	59	Regulation of human protein kinase-like protein

	U	1	Document ID	Issue Date	Pages	Title
1	X		US 20050064544 A1	20050324	83	69583 and 85924 Novel human protein kinase family members and uses therefor
2	X		US 20050048490 A1	20050303	232	Proteins associated with cell growth, differentiation, and death
3	X		US 20050027108 A1	20050203	70	Novel protein kinase molecules and uses therefor
4	X		US 20040265967 A1	20041230	118	14790, a novel protein kinase molecule and uses therefor
5	X		US 20040203097 A1	20041014	103	Kinases and phosphatases
6	X		US 20040083496 A1	20040429	93	18431 and 32374, novel human protein kinase family members and uses therefor
7	X		US 20040077044 A1	20040422	151	Kinases and phosphatases
8	X		US 20040048305 A1	20040311	62	14171 Protein kinase, a novel human protein kinase and uses thereof
9	X		US 20040038346 A1	20040226	138	Novel human protein kinases and uses therefor

	Current OR	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3
1	435/69.1	435/194; 435/320.1; 435/325; 536/23.2		Kapeller-Libermann, Rosana et al.					
2	435/6	435/226; 435/325; 435/69.1; 435/7.23; 530/350; 536/23.2		Azimzai, Yalda et al.					
3	530/388.26	435/194; 435/320.1; 435/325; 435/69.1; 536/23.2; 800/8		Acton, Susan L.					
4	435/69.1	435/194; 435/320.1; 435/325; 536/23.2		Cook, William James et al.					
5	435/69.1	435/194; 435/196; 435/320.1; 435/325; 536/23.2		Yue, Henry et al.					
6	800/8	435/194; 435/320.1; 435/325; 435/69.1; 536/23.2		Meyers, Rachel et al.					
7	435/69.1	435/194; 435/196; 435/320.1; 435/325; 530/388.26; 536/23.2		Yue, Henry et al.					
8	435/6	435/194; 435/320.1; 435/325; 435/69.1; 536/23.2		Kapeller-Libermann, Rosana					
9	435/69.1	435/194; 435/320.1; 435/325; 536/23.5		Meyers, Rachel et al.					

	4	5	Image Doc. Displayed	PT
1			US 20050064544	
2			US 20050048490	
3			US 20050027108	
4			US 20040265967	
5			US 20040203097	
6			US 20040083496	
7			US 20040077044	
8			US 20040048305	
9			US 20040038346	

	U	1	Document ID	Issue Date	Pages	Title
10	X		US 20030190640 A1	20031009	42	Genes expressed in prostate cancer
11	X		US 20030180930 A1	20030925	520	Novel human protein kinase, phosphatase, and protease family members and uses thereof
12	X		US 20030166903 A1	20030904	28	Genes associated with vascular disease
13	X		US 20030166214 A1	20030904	47	55596, a human protein kinase family member and uses therefor
14	X		US 20030108871 A1	20030612	41	Genes expressed in treated human C3A liver cell cultures
15	X		US 20020168742 A1	20021114	119	59079 and 12599, protein kinase family members and uses therefor
16	X		US 20020132321 A1	20020919	87	14790, Novel protein kinase molecule and uses therefor
17	X		US 20020094559 A1	20020718	70	Novel protein kinase molecules and uses therefor
18	X		US 20020081290 A1	20020627	43	Protein kinase homologs
19	X		US 20020068698 A1	20020606	74	13237, 18480, 2245 or 16228 novel human protein kinase molecules and uses therefor

	Current OR	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3
10	435/6	536/24.3		Faris, Mary et al.					
11	435/194	435/320.1; 435/325; 435/69.1; 536/23.2		Meyers, Rachel E. et al.					
12	536/23.2	435/6; 435/91.2		Astromoff, Anna et al.					
13	435/194	435/320.1; 435/325; 435/69.1; 536/23.2		Kapeller-Libermann, Rosana					
14	435/6	536/23.2; 702/20		Kaser, Matthew R.					
15	435/194	435/320.1; 435/325; 435/69.1; 536/23.2; 800/8		Kapeller-Libermann, Rosana et al.					
16	435/194	435/320.1; 435/325; 435/7.1; 514/12; 530/350; 530/387.1; 536/23.2		Cook, William James et al.					
17	435/194	435/320.1; 435/325; 435/69.1; 530/388.26; 536/23.2		Acton, Susan					
18	424/94.5	435/194; 435/252.3; 435/325; 435/69.1; 536/23.2; 800/8		Bandman, Olga et al.					

19	514/12	435/194; 435/320.1; 435/325; 435/6; 435/69.1; 536/23.2		Meyers, Rachel et al.					

	4	5	Image Doc. Displayed	PT
10			US 20030190640	
11			US 20030180930	
12			US 20030166903	
13			US 20030166214	
14			US 20030108871	
15			US 20020168742	
16			US 20020132321	
17			US 20020094559	
18			US 20020081290	
19			US 20020068698	

	U	1	Document ID	Issue Date	Pages	Title
20	X		US 20020061573 A1	20020523	62	18431 and 32374, novel human protein kinase family members and uses therefor
21	X		US 20020034780 A1	20020321	138	Novel human protein kinases and uses therefor
22	X		US 20020006618 A1	20020117	75	Methods for using 20893, a human protein kinase
23	X		US 6864078 B2	20050308	114	14790, novel protein kinase molecule and uses therefor
24	X		US 6740737 B2	20040525	66	Cardiovascular system associated protein kinase 2 (CSAPK-2) antibodies
25	X		US 6727066 B2	20040427	38	Genes expressed in treated human C3A liver cell cultures
26	X		US 6673549 B1	20040106	141	Genes expressed in C3A liver cell cultures treated with steroids

	Current OR	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3
20	435/194	435/320.1; 435/325; 435/69.1; 536/23.2		Meyers, Rachel et al.					
21	435/69.1	435/320.1; 435/325; 435/6; 435/7.1; 435/810; 435/975; 514/2; 530/324; 530/387.9; 536/23.5		Meyers, Rachel et al.					
22	435/6	435/4		Galvin, Katherine M. et al.					
23	435/194	435/15; 435/252.3; 435/320.1; 435/325; 435/471; 435/6; 435/69.1; 536/23.2		Cook; William James et al.					
24	530/387.1	530/387.3; 530/387.9; 530/388.26; 530/389.1		Acton; Susan L.					
25	435/6	382/129; 382/133; 382/153; 382/173; 382/286; 382/291; 435/174; 435/183; 435/252.8; 435/320.1; 536/22.1; 702/19; 702/22		Kaser; Matthew R.					
26	435/6	435/287.2; 435/7.1; 514/44; 536/23.1		Furness; L. Michael et al.					

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20			US 20020061573	
21			US 20020034780	
22			US 20020006618	
23			US 6864078	
24			US 6740737	
25			US 6727066	
26			US 6673549	

	U	1	Document ID	Issue Date	Pages	Title
27	X		US 6638721 B2	20031028	133	Human protein kinases and uses therefor
28	X		US 6630335 B1	20031007	50	14171 protein kinase, a novel human protein kinase and uses thereof
29	X		US 6331396 B1	20011218	87	Arrays for identifying agents which mimic or inhibit the activity of interferons
30	X		US 6264947 B1	20010724	38	Protein kinase homologs
31	X		US 6214597 B1	20010410	66	CSAPK-3 protein and uses therefor
32	X		US 6200770 B1	20010313	67	Protein kinase molecules and uses therefor
33	X		US 6190874 B1	20010220	66	Methods for identifying compounds that bind to CSAPK-1
34	X		US 6183962 B1	20010206	67	Protein kinase molecules and uses therefor
35	X		US 6180358 B1	20010130	66	Methods for identifying compounds that bind to CSPAK-2
36	X		US 6153417 A	20001128	66	CSAPK-1 protein and uses therefor
37	X		US 6146841 A	20001114	67	Methods for identifying compounds that bind to CSAPK-3 molecules and fragments thereof
38	X		US 6146832 A	20001114	68	Protein kinase molecules and uses therefor

	Current OR	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3
27	435/6	435/7.1		Meyers; Rachel et al.					
28	435/194	435/252.3; 435/320.1; 435/325; 435/6; 536/23.2		Kapeller-Libermann; Rosana					
29	435/6	435/287.2; 536/23.1; 536/23.52; 536/24.3; 536/24.31		Silverman; Robert H. et al.					
30	424/94.5	435/194; 530/350		Bandman; Olga et al.					
31	435/194	435/252.3; 435/320.1; 435/325; 435/6		Acton; Susan					
32	435/15	435/194; 530/350; 530/387.1; 530/387.9		Acton; Susan					
33	435/15	435/194; 435/6		Acton; Susan					
34	435/6	435/194; 435/252.3; 435/320.1; 435/325; 536/23.2		Acton; Susan					
35	435/15	435/194; 435/6; 530/350		Acton; Susan					
36	435/194	530/350; 536/23.2		Acton; Susan					
37	435/15	435/194		Acton; Susan					
38	435/6	435/194; 435/252.3; 435/320.1; 435/325; 536/23.2		Acton; Susan					

	4	5	Image Doc. Displayed	PT
27			US 6638721	
28			US 6630335	
29			US 6331396	
30			US 6264947	
31			US 6214597	
32			US 6200770	
33			US 6190874	
34			US 6183962	
35			US 6180358	
36			US 6153417	
37			US 6146841	
38			US 6146832	

	U	1	Document ID	Issue Date	Pages	Title
39	X		US 6121030 A	20000919	66	CSAPK-2 protein and uses therefor
40	X		US 6043040 A	20000328	69	Csak-3 nucleic acid molecules and uses therefor
41	X		US 6013455 A	20000111	38	Protein kinase homologs

	Current OR	Current XRef	Retrieval Classif	Inventor	S	C	P	2	3
39	435/194	435/252.3; 435/320.1; 435/325; 435/6; 530/350		Acton; Susan					
40	435/6	435/194; 435/252.3; 435/320.1; 435/325; 536/23.2		Acton; Susan					
41	435/6	435/194; 435/252.3; 435/320.1; 435/325		Bandman; Olga et al.					

	4	5	Image Doc. Displayed	PT
39			US 6121030	
40			US 6043040	
41			US 6013455	

	Document ID	Kind Codes	Source	Issue Date	Pages
1	US 20050027108 A1		US-PGPUB	20050203	70
2	US 20040235071 A1		US-PGPUB	20041125	104
3	US 20040171539 A1		US-PGPUB	20040902	59
4	US 20020094559 A1		US-PGPUB	20020718	70
5	US 6881555 B2		USPAT	20050419	39
6	US 6740737 B2		USPAT	20040525	66
7	US 6444455 B1		USPAT	20020903	18

	Title
1	Novel protein kinase molecules and uses therefor
2	Methods and compositions for treating cancer using 15986, 2188, 20743, 9148, 9151, 9791, 44252, 14184, 42461, 8204, 7970, 25552, 21657, 26492, 2411, 15088, 1905, 28899, 63380, 33935, 10480, 12686, 25501, 17694, 15701, 53062, 49908, 21612, 38949, 6216, 46863, 9235, 2201, 6985, 9883, 12238, 18057, 21617, 39228, 49928, 54476, 62113, 64316, 12264, 32362, 58198, 2887, 3205, 8557, 9600, 9693, 44867, 53058, 55556, 57658, 2208, 10252, 10302, 14218, 33877, 10317, 10485, 25964, 14815, 1363, 1397, 14827, 21708, 3801, 64698, 2179 or 13249
3	Regulation of human protein kinase-like protein
4	Novel protein kinase molecules and uses therefor
5	AKT nucleic acids, polypeptides, and uses thereof
6	Cardiovascular system associated protein kinase 2 (CSAPK-2) antibodies
7	Mitogen-activated protein kinase P38-2 and methods of use therefor

	Document ID	Kind Codes	Source	Issue Date	Pages
8	US 6214597 B1		USPAT	20010410	66
9	US 6200770 B1		USPAT	20010313	67
10	US 6190874 B1		USPAT	20010220	66
11	US 6183962 B1		USPAT	20010206	67
12	US 6180358 B1		USPAT	20010130	66
13	US 6153417 A		USPAT	20001128	66
14	US 6146841 A		USPAT	20001114	67
15	US 6146832 A		USPAT	20001114	68
16	US 6121030 A		USPAT	20000919	66
17	US 6043040 A		USPAT	20000328	69
18	US 5962232 A		USPAT	19991005	37
19	US 5948885 A		USPAT	19990907	18

	Title
8	CSAPK-3 protein and uses therefor
9	Protein kinase molecules and uses therefor
10	Methods for identifying compounds that bind to CSAPK-1
11	Protein kinase molecules and uses therefor
12	Methods for identifying compounds that bind to CSPAK-2
13	CSAPK-1 protein and uses therefor
14	Methods for identifying compounds that bind to CSAPK-3 molecules and fragments thereof
15	Protein kinase molecules and uses therefor
16	CSAPK-2 protein and uses therefor
17	Csak-3 nucleic acid molecules and uses therefor
18	Protein kinase molecules
19	Mitogen-activated protein kinase p38-2 and methods of use therefor

	Document ID	Kind Codes	Source	Issue Date	Pages
1	US 20050027108 A1		US-PGPUB	20050203	70
2	US 20040235071 A1		US-PGPUB	20041125	104
3	US 20040171539 A1		US-PGPUB	20040902	59
4	US 20020094559 A1		US-PGPUB	20020718	70
5	US 6881555 B2		USPAT	20050419	39
6	US 6740737 B2		USPAT	20040525	66
7	US 6444455 B1		USPAT	20020903	18

	Title
1	Novel protein kinase molecules and uses therefor
2	Methods and compositions for treating cancer using 15986, 2188, 20743, 9148, 9151, 9791, 44252, 14184, 42461, 8204, 7970, 25552, 21657, 26492, 2411, 15088, 1905, 28899, 63380, 33935, 10480, 12686, 25501, 17694, 15701, 53062, 49908, 21612, 38949, 6216, 46863, 9235, 2201, 6985, 9883, 12238, 18057, 21617, 39228, 49928, 54476, 62113, 64316, 12264, 32362, 58198, 2887, 3205, 8557, 9600, 9693, 44867, 53058, 55556, 57658, 2208, 10252, 10302, 14218, 33877, 10317, 10485, 25964, 14815, 1363, 1397, 14827, 21708, 3801, 64698, 2179 or 13249
3	Regulation of human protein kinase-like protein
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5	AKT nucleic acids, polypeptides, and uses thereof
6	Cardiovascular system associated protein kinase 2 (CSAPK-2) antibodies
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	Document ID	Kind Codes	Source	Issue Date	Pages
8	US 6214597 B1		USPAT	20010410	66
9	US 6200770 B1		USPAT	20010313	67
10	US 6190874 B1		USPAT	20010220	66
11	US 6183962 B1		USPAT	20010206	67
12	US 6180358 B1		USPAT	20010130	66
13	US 6153417 A		USPAT	20001128	66
14	US 6146841 A		USPAT	20001114	67
15	US 6146832 A		USPAT	20001114	68
16	US 6121030 A		USPAT	20000919	66
17	US 6043040 A		USPAT	20000328	69
18	US 5962232 A		USPAT	19991005	37
19	US 5948885 A		USPAT	19990907	18

	Title
8	CSAPK-3 protein and uses therefor
9	Protein kinase molecules and uses therefor
10	Methods for identifying compounds that bind to CSAPK-1
11	Protein kinase molecules and uses therefor
12	Methods for identifying compounds that bind to CSPAK-2
13	CSAPK-1 protein and uses therefor
14	Methods for identifying compounds that bind to CSAPK-3 molecules and fragments thereof
15	Protein kinase molecules and uses therefor
16	CSAPK-2 protein and uses therefor
17	Csak-3 nucleic acid molecules and uses therefor
18	Protein kinase molecules
19	Mitogen-activated protein kinase p38-2 and methods of use therefor

	Document ID	Kind Codes	Source	Issue Date	Pages
1	US 20050064544 A1		US-PGPUB	20050324	83
2	US 20050048490 A1		US-PGPUB	20050303	232
3	US 20050027108 A1		US-PGPUB	20050203	70
4	US 20040265967 A1		US-PGPUB	20041230	118
5	US 20040203097 A1		US-PGPUB	20041014	103
6	US 20040083496 A1		US-PGPUB	20040429	93
7	US 20040077044 A1		US-PGPUB	20040422	151
8	US 20040048305 A1		US-PGPUB	20040311	62
9	US 20040038346 A1		US-PGPUB	20040226	138
10	US 20030190640 A1		US-PGPUB	20031009	42
11	US 20030180930 A1		US-PGPUB	20030925	520
12	US 20030166903 A1		US-PGPUB	20030904	28
13	US 20030166214 A1		US-PGPUB	20030904	47
14	US 20030108871 A1		US-PGPUB	20030612	41

	Title
1	69583 and 85924 Novel human protein kinase family members and uses therefor
2	Proteins associated with cell growth, differentiation, and death
3	Novel protein kinase molecules and uses therefor
4	14790, a novel protein kinase molecule and uses therefor
5	Kinases and phosphatases
6	18431 and 32374, novel human protein kinase family members and uses therefor
7	Kinases and phosphatases
8	14171 Protein kinase, a novel human protein kinase and uses thereof
9	Novel human protein kinases and uses therefor
10	Genes expressed in prostate cancer
11	Novel human protein kinase, phosphatase, and protease family members and uses thereof
12	Genes associated with vascular disease
13	55596, a human protein kinase family member and uses therefor
14	Genes expressed in treated human C3A liver cell cultures

	Document ID	Kind Codes	Source	Issue Date	Pages
15	US 20020168742 A1		US-PGPUB	20021114	119
16	US 20020132321 A1		US-PGPUB	20020919	87
17	US 20020094559 A1		US-PGPUB	20020718	70
18	US 20020081290 A1		US-PGPUB	20020627	43
19	US 20020068698 A1		US-PGPUB	20020606	74
20	US 20020061573 A1		US-PGPUB	20020523	62
21	US 20020034780 A1		US-PGPUB	20020321	138
22	US 20020006618 A1		US-PGPUB	20020117	75
23	US 6864078 B2		USPAT	20050308	114
24	US 6740737 B2		USPAT	20040525	66
25	US 6727066 B2		USPAT	20040427	38
26	US 6673549 B1		USPAT	20040106	141
27	US 6638721 B2		USPAT	20031028	133
28	US 6630335 B1		USPAT	20031007	50

	Title
15	59079 and 12599, protein kinase family members and uses therefor
16	14790, Novel protein kinase molecule and uses therefor
17	Novel protein kinase molecules and uses therefor
18	Protein kinase homologs
19	13237, 18480, 2245 or 16228 novel human protein kinase molecules and uses therefor
20	18431 and 32374, novel human protein kinase family members and uses therefor
21	Novel human protein kinases and uses therefor
22	Methods for using 20893, a human protein kinase
23	14790, novel protein kinase molecule and uses therefor
24	Cardiovascular system associated protein kinase 2 (CSAPK-2) antibodies
25	Genes expressed in treated human C3A liver cell cultures
26	Genes expressed in C3A liver cell cultures treated with steroids
27	Human protein kinases and uses therefor
28	14171 protein kinase, a novel human protein kinase and uses thereof

	Document ID	Kind Codes	Source	Issue Date	Pages
29	US 6331396 B1		USPAT	20011218	87
30	US 6264947 B1		USPAT	20010724	38
31	US 6214597 B1		USPAT	20010410	66
32	US 6200770 B1		USPAT	20010313	67
33	US 6190874 B1		USPAT	20010220	66
34	US 6183962 B1		USPAT	20010206	67
35	US 6180358 B1		USPAT	20010130	66
36	US 6153417 A		USPAT	20001128	66
37	US 6146841 A		USPAT	20001114	67
38	US 6146832 A		USPAT	20001114	68
39	US 6121030 A		USPAT	20000919	66
40	US 6043040 A		USPAT	20000328	69
41	US 6013455 A		USPAT	20000111	38

	Title
29	Arrays for identifying agents which mimic or inhibit the activity of interferons
30	Protein kinase homologs
31	CSAPK-3 protein and uses therefor
32	Protein kinase molecules and uses therefor
33	Methods for identifying compounds that bind to CSAPK-1
34	Protein kinase molecules and uses therefor
35	Methods for identifying compounds that bind to CSPAK-2
36	CSAPK-1 protein and uses therefor
37	Methods for identifying compounds that bind to CSAPK-3 molecules and fragments thereof
38	Protein kinase molecules and uses therefor
39	CSAPK-2 protein and uses therefor
40	Csak-3 nucleic acid molecules and uses therefor
41	Protein kinase homologs